

IN THE UNITED STATES COURT OF FEDERAL CLAIMS

In re DOWNSTREAM ADDICKS AND
BARKER (TEXAS) FLOOD-CONTROL
RESERVOIRS

Sub-Master Docket
No. 17-9002L

Senior Judge Loren A. Smith
(E-Filed January 10, 2023)

THIS DOCUMENT APPLIES TO:

ALL DOWNSTREAM CASES

**PLAINTIFFS' RESPONSE TO
UNITED STATES' MOTION FOR SUMMARY JUDGMENT AND
CROSS-MOTION FOR SUMMARY JUDGMENT**

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INTRODUCTION

The Federal Circuit remanded this case—after declining to consider legal arguments about the existence of a taking and the Government’s causation defense—with an unmistakable message: “We have noted that ‘due to the fact-intensive nature of takings cases, summary judgment should not be granted precipitously.’” *Milton v. United States*, 36 F.4th 1154, 1163 (Fed. Cir. 2022) (quoted citations omitted). Heeding that advice, Plaintiffs suggested that the case proceed to trial, after which the existence of a taking, causation, and the Government’s defensive theories could be decided on a full record and without any risk of an appellate reversal requiring further proceedings; one way or another, this Court and the Federal Circuit would have a complete factual record and the findings necessary to render judgment. But despite having proven itself unable to defend the prior summary judgment, the Government insisted on another round of dispositive motions. Plaintiffs respectfully adhere to their position that the prudent course is to deny summary judgment and proceed with a trial, which is better suited to “the fact-intensive nature of takings cases.” *Id.* But if any party deserves judgment as a matter of law, it is Plaintiffs—not the Government.

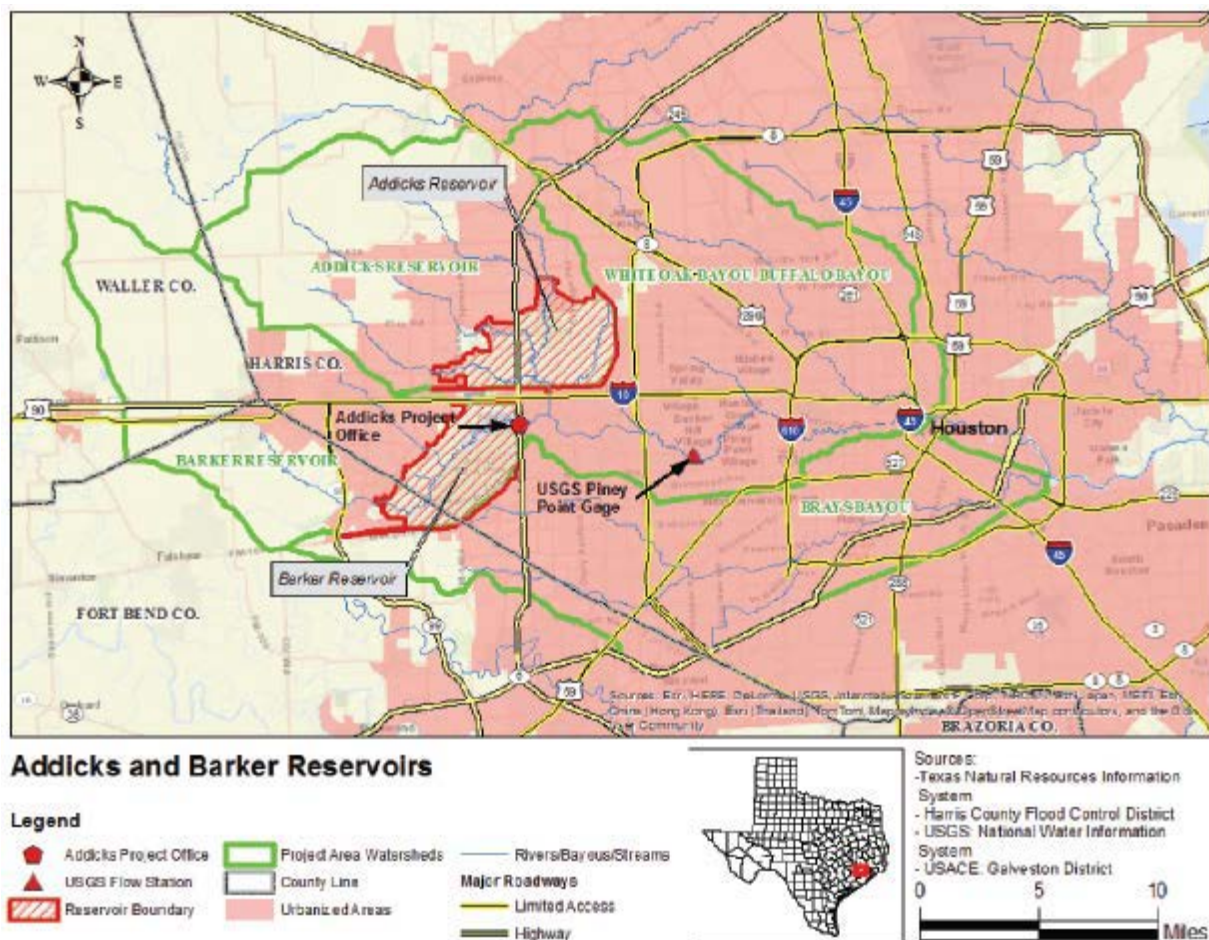
The Government largely avoids the liability rules for a taking, which is not surprising—those rules dictate the conclusion that the Government took both a permanent and a temporary flowage easement over the downstream properties. Instead, the Government seeks judgment as a matter of law on the basis of causation, but its causation argument rests on an incorrect baseline; under the correct legal standard, causation is established. The Government also seeks judgment as a matter of law on the relative benefits doctrine, but it has not presented the conclusive evidence required to establish that defense as a matter of law. Finally, the Government seeks judgment as a matter of law on its necessity defense, but the evidence in this case forecloses that defense. Thus, the Government’s motion should be denied and Plaintiffs’ cross-motion should be granted on the liability and causation elements of the takings claim, with the other issues set for a prompt trial.

STATEMENT OF THE CASE

As Tropical Storm Harvey Approaches, Thousands of Houstonians Rely on the Barker and Addicks Reservoirs

On August 25, 2017, Hurricane Harvey made landfall along the Texas coast. A3134. Within 12 hours of landfall, Harvey weakened into a tropical storm. *Id.* Eventually, it stalled over the Houston area for four days. *Id.*

As the tropical storm approached Houston, the Corps of Engineers prepared for the deluge. The Corps operates the Addicks and Barker Reservoirs—two earthen dams approximately 11.5 and 13.5 miles in length—on the west side of the greater Houston area:



A19-20, A310-311.

The Reservoirs protect the City of Houston and the Houston Ship Channel by impounding water behind dams, mitigating flood risks to downstream areas. A19, A47, A1185, A168, A441. The Reservoirs can hold more than 133.5 billion gallons of water: Addicks holds approximately 200,000 acre-feet and Barker holds approximately 210,000 acre-feet. A189-90.²

In operating the Reservoirs, the Corps follows a Water Control Manual. Section 7-05(a), the “Normal Flood Control Regulation,” directs that the floodgates should remain closed during flood events until releases can be made without causing damaging downstream flooding. A49. The Corps’ standard practice is to impound stormwater entering the Reservoirs: “The gates on both reservoirs will be closed when 1 inch of rainfall occurs over the watershed below the reservoirs in 24 hours or less, or when flooding is predicted downstream.” A49. Section 7-05(a) directs the dam operator to “[k]eep the gates closed and under surveillance *as long as necessary to prevent flooding below the dams.*” A49 (emphasis added).

Prior to Tropical Storm Harvey, the Corps had evaluated both downstream and upstream flooding risks and decided the Reservoirs would be operated to prevent downstream flooding—even at the cost of flooding upstream properties:

The increase in downstream development (and possibility downstream tributary inflow) has contributed to reductions in allowable outflows. *The dams are operated strictly to prevent downstream flooding; therefore, the gates remain shut even if pool levels increase and flood upstream properties.*

A181 (emphasis added). The Government did so, at least in part, because it had deemed the cost of acquiring property in the discharge corridor “prohibitive,” A2661, and “astronomical.” A2664. In addition, public reaction would be “highly unfavorable and unacceptable.” A2664.

² See *Water Measurement*, Colorado River Water Conservation District, <https://www.coloradoriverdistrict.org/water-measurement/> (last visited January 10, 2023) (explaining that one acre-foot is nearly 326,000 gallons).

Instead of purchasing property downstream from the Reservoirs, the Government adjusted its practices under the Water Control Manual to protect development in the downstream corridor. Originally, the Reservoirs each had one controlled and four uncontrolled outlet conduits. A22. But “[i]ncreasing urban development adjacent to Buffalo Bayou during the 1940’s and 1950’s created a potential flood threat by the controlled release from the reservoirs.” A24. Thus, by 1963, the Government had gated all the conduits in order to restrict the flow of water downstream. A24. Each Reservoir now has five gated conduits, and the gates can be closed completely or opened to varying degrees to allow water to flow downstream. A19-A20. Ever since the gates were installed, the Government has adjusted discharge rates to maintain a “non-damaging channel capacity.”

Installation of the gated conduits allowed the Government to reduce discharges from the original design concept of 15,700 cubic feet per second (cfs) to a range of 4,000-6,000 cfs. A24. As of 1964, the Government’s Reservoir Regulation Manual for Addicks and Barker Reservoirs (the predecessor to the Water Control Manual) instructed the dam operators to “[k]eep gates closed and under surveillance as long as needed to prevent flooding below the dam.” A222. At that time, the maximum non-damaging channel capacity was estimated to be 6,000 cfs. A222.

But the ongoing development of the West Houston area required further accommodations: “Continued residential development along Buffalo Bayou downstream from the reservoirs resulted in channel encroachment and by late 1970, flows in excess of 3,000 cfs in the unimproved channel below the dams would begin to threaten the first floor elevations of some residences.” A24. Thus, by 2012, total releases “into the inadequate downstream channel,” A25, were limited to 2,000 cfs. A25-26. “The chief regulation problem associated with Addicks and Barker reservoirs has been the continually diminishing downstream non-damaging channel capacity due to encroachment.” A26. In a virtuous (or vicious) cycle, development and dam operations evolved in tandem.

Although the discharge rate evolved over time, the Government maintained a fixed policy of limiting discharges from the Reservoirs to prevent downstream flooding:

1977: “The combined discharge from Addicks and Barker Reservoirs is limited by this control [non-damaging capacity of 3,000 cfs] less any tributary inflows below the dams.” A3002.

1984: “The current non-damaging capacity of Buffalo Bayou is about 2,000 cfs, and combined discharges from both reservoirs are limited to this flow rate less tributary inflows below the dams.” A2714.

1992: “The gates will remain closed until downstream conditions permit system releases plus local inflows that remain below the non-damaging capacity.” A2674. “The current operating plan limits the discharge rate in order to avoid erosion and flood damages to downstream properties.” A2681.

1999: “The gates are kept closed and under surveillance as long as needed to prevent flooding below the reservoirs.” A3117.

The 2012 version of the Water Code Manual (in effect at the time Tropical Storm Harvey) continued this policy. A49; *see also* p. 3, *supra*. And the policy was communicated to the public. In 2016, following an event in which the Reservoirs were operated normally and flooding resulted in some upstream communities, the Corps publicly explained its policy in the *Houston Chronicle*: “***We will not open the dam to a point where it will cause flooding downstream.***” A3331-32.

Given this long history, for decades Houston residents and business owners justifiably relied on the Addicks and Barker Reservoirs to protect their property against downstream flooding. One of the test property owners who grew up in the area in the 1950’s noted, “I can remember my father saying years ago that Memorial wouldn’t have been developed without those dams.” A572. The test property owners acquired their properties between 1976 and 2015—after the Reservoirs were gated. A2029-185, A458-92. Most of the test properties were homes; a few were businesses. A458-92. Three were in the 100-year flood zone, seven were in the 500-year flood zone, and three were not in any flood zone. A1126-47. All were developed in reliance on the Reservoirs.

Over the course of time, the Reservoirs have become such an integral part of the landscape of West Houston that they are taken for granted. Most of the test property owners knew of them (either before or after acquiring their properties). *See* A529-30, A533, A539, A547, A560, A568, A571-72, A577, A586-87, A597. A few were unaware of them. *See* A552, A556, A564, A591. Some were “[v]ery aware.” A567. “[F]rom my understanding, the dams were built to protect us, and we always relied on that theory.” A567. At this point, they have become part of the backdrop of West Houston. As one test property owner perceptively explained: “You know it’s out there, but you really don’t pay that much attention until somebody draws your attention to it.” A530. Whether consciously or unconsciously, therefore, Houstonians relied on the protection afforded by the Reservoirs: “It’s not something we thought a lot about. We just kind of took it for granted that those dams were there to protect that part of town.” A573; *see also* A530 (test property owner understood the dams were intended to “drain out slowly but surely to where the bayou can handle the flow of water”); A547 (test property owner understood the Reservoirs were intended “to keep flood waters from overtaking the land and so you had a place to contain it until it could evaporate or flow out” and “manage the flood-related problems in the area”); A582 (test property owner understood the Reservoirs “operate to basically control the flow of water all the way downtown for the integrity of – you know, not flooding the areas”).

None of the test property owners knew of any prior flooding of their properties at the time of purchase. A493-527. Nor did any of them know that the Government might deliberately release water from the Reservoirs in sufficient quantities to flood their properties. A3333-56. Indeed, even highly sophisticated participants in the West Houston real estate market had no way to know the Government might inundate the downstream properties; on the contrary, market participants relied on the Reservoirs and expected them to protect downstream properties. A3357-58.

Knowing It Will Flood Downstream Properties, the Government Orders Induced Surcharges

No test property owner knew about the Corps of Engineers' Water Control Manual. Thus, they were unaware of Section 7-05(b): "Induced Surcharge Flood Control Regulation." A3333-56. That regulation commands the Corps to open the floodgates and inundate downstream properties under certain conditions. A50. Specifically, "reservoir releases will be made in accordance with the induced surcharge regulation schedules" in the Manual. A50. The schedules dictate triggers based on two factors: pool elevation and the rate of pool elevation rise. A50, A146-47, A443.

Those triggers are designed to optimize storage capacity and ensure the structural stability of the dams, guaranteeing that the Reservoirs protect Downtown Houston and the Ship Channel. A1179; A441-43; A3141. Induced surcharges are ordinary operations, not emergency actions—they are triggered *before* the dams reach capacity. Compare A50 (induced surcharge triggers), with A177-78 (reservoir capacities). These are prophylactic measures that are meant to maximize the storage capacity of the Reservoirs, A442, and to protect the integrity of the dams. A3143. There is an Emergency Action Plan, A316-17, but no emergency has ever been declared. A448, A1153. Prior to Tropical Storm Harvey, induced surcharges had never been ordered. A443.

During Tropical Storm Harvey, the Corps ordered induced surcharges for the first time. A443, A1184. The Reservoirs were still "performing as expected with no significant problems." A1156, A446. The dams were *not* compromised or in danger of failing. A446-48; *see* p. 64, *infra*. But around midnight on August 27-28, the Section 7-05(b) triggers were reached. A443, A1151, A1176, A1184, A1187. Colonel Lars Zetterstrom, the commander responsible for the Reservoirs, A1180, ordered the floodgates to be opened shortly after midnight. A1184, A1187, A1238. Colonel Zetterstrom "briefed [his] commander" in Washington, D.C. about "the necessary actions" dictated by the Water Control Manual. A1184. The manual has "never been disregarded," A1155, and during Harvey, the entire chain of command followed it. A3383-92, A3397.

The Corps knew what such induced surcharges would mean for the downstream properties. For decades, the Corps has modeled downstream flow rates in Buffalo Bayou. A24-26. By 2014, it had created maps modeling downstream inundation at various flow rates. A326-31, A452-57; *see also* A42, A136-42. Its maps identified the areas that would be inundated with precision. *Id.*

In 2016, therefore, the Corps knew that downstream properties along the Buffalo Bayou would suffer flood damage at flow rates greater than 3,000 cfs (cubic feet/second):

Using USACE surveys of 1st flood elevation data, it was determined that the lower level of homes in the vicinity of the West Beltway Bridge (approximately 6.5 miles downstream of the reservoirs) experience flooding at discharges in Buffalo Bayou of 4,100 cfs. This data is consistent with complaints of property inundation typically received by the District at discharges of 3,000 cfs and above. At flows greater than 4,100 cfs, a large percentage of the structures incurring flood damage are located between the bridges over Buffalo Bayou at North Wilcrest Drive (approximately 5 miles downstream of the reservoirs, measured along the streambed) and Chimney Rock Road (approximately 16 miles downstream of the reservoirs).

A282 (emphasis added). The Corps could foresee the downstream inundation that would occur—down to the street and block—as a result of induced surcharges. A452-57, A1155, A1182, A1826.

Therefore, when it ordered the induced surcharges, the Corps knew that its actions were “making people hurt downstream.” A1148A. Colonel Zetterstrom and his peers “understood” that “there would potentially be impacts downstream.” A1180. “[W]e were aware of the potential for inundation of structures downstream due to controlled release.” A1182. On August 27, 2017, the Corps “had discussions” with “a lot of people” in the chain of command about the flooding that would result from induced surcharges. A3388. The Corps knew exactly what it was doing.

By contrast, the Corps cannot identify any occasion where the induced surcharge regulation was ever disclosed to the public. A3367-69, A3402-04, A3408. The only reasonable inference is that it never did so. In short, no one in West Houston knew of this risk. *See pp. 6-7, supra.*

The Induced Surcharges Cause Massive Downstream Flooding

Downstream property owners received no warnings about the releases. *See* A1750, A3183. Thus, they had no idea what was coming. Within a few hours after the induced surcharges began, downstream properties began to be inundated. A1349-62.³ The induced surcharges created two “flood waves moving downstream through Buffalo Bayo,” A1238, like slow-moving tsunamis that dramatically increased downstream flooding. *See* A1238-39, A1194-201.

Early on August 28, the releases from the Reservoirs reached a total combined discharge of 6,000 cfs—well in excess of the Corps’ models projecting downstream flooding at 3,000 cfs. A1238, A1252; *see also* p. 8, *supra*. The following day, the Corps “ramped up” the releases to a total combined discharge of approximately 13,000 cfs. A1238, A1252. “During these two periods where release was ramped up, rainfall intensities were relatively low” A1252.

In a harrowing experience shared by countless downstream property owners, people had to be evacuated from at least nine of the test properties—many by boat. A696-716, A3185, A3260. Seven of the test properties suffered flooding to a depth of three feet or more above the first floor—including two that exceeded depths of eight feet. Four experienced depths of one to three feet, while two experienced depths of less than one foot. A1330, A661-95, A1036-147.

Although some properties had experienced minor flooding prior to the induced surcharges, it paled in comparison to the impact of the induced surcharges. A1349-62, A1819-26, A967-1125. One commercial property reported just a few inches of flooding prior to the releases, A1820, escalating to six feet afterward. A1820, A1059-60.

³ The time from release to inundation varied for each downstream property depending on its distance from the Reservoirs. Under normal circumstances, it can take several hours for water to travel to various measurement points. *See* A220, A1252, A1194.

This massive flooding was a rude shock to the downstream property owners. Nine of the test properties had never flooded in the years—in some cases, decades—after they were acquired. A599-625, A1036-147. Although four had experienced some minor flooding prior to this event, that flooding had been brief and shallow—nothing like the long-lasting and catastrophic flooding that followed the induced surcharges. A626-60, A1037, A1040, A1133.

The experts on both sides of this case agree that the Government’s decision to open the floodgates either directly caused or substantially worsened the flooding of downstream properties. The Government’s own analysis shows that at least eight of the test properties would not have flooded but for the induced surcharges. The Government’s expert modeled the actual flooding that occurred as well as several alternative models—including a model in which the floodgates remained closed. A1324-25, A1584-85. These models reveal that eight test properties would not have flooded at all but for the induced surcharges, and four would have flooded substantially less but for the induced surcharges. *Compare* A1330 *with* A1741; *see also* A1843-45 (Plaintiffs’ expert analyzing Government’s models).

Plaintiffs’ expert reached a very similar conclusion. *See* A1819-26 (concluding that eight of the test properties would not have flooded but for the induced surcharges and four would have flooded substantially less but for the induced surcharges). Although there is a divergence between the experts concerning (i) which properties would not have flooded and (ii) how much less some properties would have flooded, there is no dispute that the test properties would have benefitted if the gates had remained closed.⁴ A1819-26, A1330, A1741. Thus, but for the induced surcharges, it is undisputed that Plaintiffs’ properties would have suffered no or substantially less flooding.

⁴ As to one test property (Stahl), the modeling was either unfeasible or showed no difference. A1825, A1330, A1741. Consequently, following the first round of summary judgment briefing, that plaintiff’s claims were voluntarily dismissed.

Plaintiffs’ Properties Suffer Catastrophic and Enduring Impacts

As the rain ceased, the induced surcharges quickly became the primary source of water in the Buffalo Bayou. A1253, A1196. This pattern lasted “at least 6 days after the rain stopped.” A1253. The water generated from the Reservoir discharges was more than sufficient to flood the test properties—many of which were inundated for days. A1330. Some owners were unable to gain access to their properties for nearly two weeks. A717-42, A3185, A3261; *see also* A1330.

Given the severity and duration of the flooding, the losses were staggering. Many of the test properties suffered hundreds of thousands of dollars in damages—in addition to most or all personal property stored on the first flood of the properties (including vehicles). *See* A743-883. One commercial property owner estimated that repairs would cost \$17 million. A3185. In total, the test property owners have estimated out-of-pocket losses exceeding \$22 million. A3333-56. Compounding this loss, downstream properties have declined in value by more than 20%. A3358.

The downstream property owners could not use or enjoy their property for several months. *See* A884-966 (residential property); A928-30 (commercial property). Three test property owners were still ousted from their homes nearly a year later. A890-91, A923, A936.

The Corps Plans to Use the Induced Surcharge Procedure in the Future

Because Section 7-05(b) of the Water Control Manual remains in effect today, A50, A441, the Government intends to inundate downstream properties yet again when a similar event occurs. A1152; *see also* A1748 (“It could happen again.”).

The risk is very realistic. Although Tropical Storm Harvey was undeniably a severe event, Judge Lettow found (in the upstream trial) that “recent trends suggest that storms and hurricanes on par with Harvey are becoming increasingly frequent” and “[s]imilarly large storms will likely occur in the future, but it remains uncertain when or how frequently.” A3437.

Anticipating such events, the Addicks & Barker Emergency Coordination Team met after Tropical Storm Harvey to focus on “improved coordination during extreme events,” A3175, including with respect to “Surcharge Releases.” A3177. Far from disavowing Section 7-05(b), the Corps is focused on improving communications. Members of the Corps “have already briefed the white house [sic], of developing a method to push notifications out to everyone.” A3177.

The Government has long realized that “[t]he downstream properties that are at risk for flood or erosion damage could be purchased and removed.” A2681. After Harvey, the Corps discussed the need for “federal funding to buy all of the property in the A&B reservoirs *and in the surcharge corridor.*” A3179 (emphasis added). But the Government has chosen not to purchase the downstream properties because it would be prohibitively expensive.

This Court Dismisses the Downstream Cases and the Federal Circuit Reverses

In prior proceedings, this Court granted both the Government’s motion to dismiss and its motion for summary judgment on the ground that the Plaintiffs lacked a property interest in “perfect flood control.” Dkt. 203. The Federal Circuit reversed, holding that the Plaintiffs have cognizable property rights under Texas law. *See Milton v. United States*, 36 F.4th 1154, 1160-62 (Fed. Cir. 2022). The Federal Circuit remanded for this Court to consider the following issues:

- (1) whether [Plaintiffs] have shown that a temporary taking occurred under the test applicable to flooding cases;
- (2) whether [Plaintiffs] have shown that a permanent taking occurred;
- (3) whether [Plaintiffs] have established causation when considering “the impact of the entirety of government actions that address the relevant risk”; and
- (4) whether the Government can invoke the necessity doctrine as a defense.

Id. at 1163 (citations omitted). It cautioned that ““due to the fact-intensive nature of takings cases, summary judgment should not be granted precipitously.”” *Id.* (citation omitted).

SUMMARY OF ARGUMENT

The Government took a flowage easement in two distinct ways. First, Section 7-05(b) of the Water Control Manual asserts a right to use downstream properties for flood control purposes. Section 7-05(b) effects a permanent, categorical taking of a flowage easement because it deprives Plaintiffs of the right to exclude others from their property. *See Cedar Point Nursery v. Hassid*, 141 S. Ct. 2063, 2072-77 (2021); *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 537 (2005). It takes from the downstream property owners “one of the most essential sticks in the bundle of rights that are commonly characterized as property.” *Nollan v. Cal. Coastal Comm’n*, 483 U.S. 825, 831 (1987) (citation omitted). This taking is established as a matter of law.

Second, the Government temporarily took a flowage easement by physically flooding the downstream properties for up to two weeks. This action was a taking under the multi-factor test set forth in *Arkansas Game & Fish Comm’n v. United States*, 568 U.S. 23 (2012). The key facts are not disputed. Applying the *Arkansas Game* analysis to those facts, the Government took a temporary flowage easement as a matter of law. At the very least, there are fact issues for trial. *See, e.g., Anaheim Gardens, L.P. v. United States*, 953 F.3d 1344, 1349-51 (Fed. Cir. 2020).

The summary judgment record conclusively proves that Plaintiffs’ properties were flooded (or their flooding was worsened) because the Government opened the floodgates in accordance with Section 7-05(b) of the Manual. It did so as a prophylactic measure—not due to any necessity. The summary judgment record establishes that the dams were performing as intended and were never in danger of failing. Nevertheless, the Government chose to flood the downstream properties as a matter of policy. This is not a case about a government project that caused incidental flooding or flooding that would have occurred in any event; it is case about a deliberate decision to flood specific properties for a public purpose. The Government had a sovereign right to take this action in the name of the public good, and now it has a constitutional duty to pay just compensation.

ARGUMENT

I. Plaintiffs Are Entitled to Judgment as a Matter of Law on the Takings Claim.

As a matter of law, the conduct in question constituted a taking under the Fifth Amendment. This is true both because the Water Control Manual effected a permanent, categorical taking and because the inundation of Plaintiffs' properties effected a temporary taking under the test set forth in *Arkansas Game & Fish Comm'n v. United States*, 568 U.S. 23 (2012).

A. The Manual takes a permanent, categorical flowage easement.

First, the Government took a flowage easement over the Plaintiffs' properties through its Water Control Manual, which declares a unilateral right to use properties downstream from the Addicks and Barker Reservoirs for flood control purposes. Section 7-05(b) distinguishes this case from most flooding cases because it establishes a permanent government policy that deprives the downstream property owners of their right to exclude the Government from invading their land. This easement constitutes a permanent, categorical taking that requires just compensation.

Physical seizures of private property are at the heart of the Fifth Amendment, and as such, “[w]hen the government physically takes possession of an interest in property for some public purpose, it has a categorical duty to compensate the former owner.” *Arkansas Game*, 568 U.S. at 31 (citation omitted). The Supreme Court describes such physical invasions as “[t]he paradigmatic taking requiring just compensation,” *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 537 (2005), and “the classic taking.” *Id.* at 539. Similarly, regulatory action that requires a property owner to suffer a permanent physical invasion of private property is a categorical taking. *Id.* at 538. This rule holds “no matter how minute the intrusion, and no matter how weighty the public purpose behind it.” *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1015 (1992). When such a categorical taking occurs, there is no need for any balancing of factors—the Government must compensate the property owner. *Id.* at 1015, 1028.

Government appropriation of an easement falls within this test. *Lingle*, 544 U.S. at 546-47; *Dolan v. City of Tigard*, 512 U.S. 374, 384 (1994); *Nollan*, 483 U.S. at 831-32. Flowage easements are no exception: “government actions may not impose upon a private landowner a flowage easement without just compensation.” *Ridge Line, Inc. v. United States*, 346 F.3d 1346, 1353 (Fed. Cir. 2003) (citing cases); *accord id.* at 1354 (same). Because “the right to exclude [is] one of the most essential sticks in the bundle of rights that are commonly characterized as property,” *Nollan*, 483 U.S. at 831 (cleaned up), a *per se* taking occurs when the government declares a “permanent and continuous right” of access to private property—even if that right is not continuously exercised. *Id.* at 832.

Such an easement need not be set forth in title documents. The Supreme Court recently held that a permanent, categorical taking occurs when a government regulation decrees a right to invade an owner’s private property. *Cedar Point Nursery v. Hassid*, 141 S. Ct. 2063, 2080 (2021). Such a regulation effects a *per se* physical taking. *Id.* *Cedar Point* is decisive in this case.

First, because the right to exclude is “one of the most essential sticks in the bundle of rights that are commonly characterized as property,” *id.* at 2072 (citation omitted), the Court treats “government-authorized physical invasions as takings requiring just compensation.” *Id.* at 2073. “The Court has often described the property interest taken as a servitude or an easement.” *Id.* Thus, “servitude” and “easement” are terms used to describe a right to invade property, and it is settled that “appropriation of an easement constitutes a physical taking.” *Id.* (citing cases).

Second, it makes no difference whether the Government takes an easement in formal terms or by publishing it in a regulation (such as the “Induced Surcharge Flood Control Regulation”). The legal effect is the same. “Government action that physically appropriates property is no less a physical taking because it arises from a regulation.” *Id.* at 2072. “Whenever a regulation results in a physical appropriation of property,” therefore, “a *per se* taking has occurred.” *Id.*

Taken together, these principles mean that a regulation that appropriates “a right to invade the [owners’] property ... constitutes a *per se* physical taking.” *Id.* at 2072; *see also id.* at 2074 (holding the regulation at issue “appropriates a right to physically invade the [private] property,” which constitutes “a *per se* physical taking under our precedents”).

Third, such a taking may occur if the Government invades property in ways that an owner could not practically exclude—such as “invasion of private property by overflights,” *id.* at 2073 (citing *United States v. Causby*, 328 U.S. 256 (1946)), or “assertion of a right to fire coastal defense guns across private property.” *Id.* (citing *Portsmouth Harbor Land & Hotel Co. v. United States*, 260 U.S. 327 (1922)). Even if the property owner could not resist, the invasion is a taking.

Fourth, it is the assertion of a governmental right to invade private property, and not the frequency with which that right is exercised, that effects a taking. Thus, “a physical appropriation is a taking whether it is permanent or temporary,” *id.* at 2074, and “physical invasions constitute takings even if they are intermittent as opposed to continuous.” *Id.* at 2075. “The fact that a right to take access is exercised only from time to time does not make it any less a physical taking.” *Id.*

Fifth, a right to invade private property is not subject to the balancing test that governs regulatory takings. *Id.* at 2076-77. “Our cases establish that appropriations of a right to invade are *per se* physical takings, not use restrictions subject to *Penn Central*” (and its balancing test for regulatory takings). *Id.* at 2077. Thus, if the Government takes a right to invade private property, courts need not consider other factors. Protected property rights “cannot be balanced away.” *Id.* The Federal Circuit recently reiterated the “categorical treatment of a coerced easement that impairs the landowner’s right to exclude.” *Caquelin v. United States*, 959 F.3d 1360, 1367 (Fed. Cir. 2020) (citing cases). When a categorical taking has occurred, there is no room for any balancing analysis (such as the multi-factor test set forth in *Arkansas Game* for temporary flooding cases).

Finally—and of special importance for this case—treating a governmental right of access as a *per se* physical taking “does nothing to efface the distinction between trespass and takings.” *Cedar Point*, 141 S. Ct. at 2078. The critical distinction between a tort (trespass) and a taking is whether the invasion occurred pursuant to a “granted right of access”: “Isolated physical invasions, ***not undertaken pursuant to a granted right of access***, are properly assessed as individual torts....” *Id.* (emphasis added). This case, like *Cedar Point*, concerns a “granted right of access.”

Most government-induced flooding cases do not involve a “granted right of access” but a governmental action that unintentionally resulted in flooding on private property. In those cases, the *Arkansas Game* balancing test applies “the traditional trespass-versus-takings distinction to the unique considerations that accompany temporary flooding.” *Id.* at 2079. But this case is different. Because it involves a regulation that declares a “right of access,” it is subject to the same rules that govern every regulatory easement. “As in those cases, the government here has appropriated a right of access to the [owners’] property,” which constitutes “a *per se* physical taking.” *Id.* at 2074. These facts trigger the “traditional rule: Because the government appropriated a right to invade, compensation [is] due.” *Id.* at 2076.

Section 7-05(b), the Government’s “Induced Surcharge Flood Control Regulation,” states that under certain conditions the floodgates will be opened, which will inundate downstream properties. *See pp. 7-8, supra*. When the specified conditions exist, “reservoir releases will be made in accordance with the induced surcharge regulation schedules.” A50. The flooding at issue unquestionably resulted from the Government’s deliberate invocation of the regulation; it was no accident. *See pp. 7-10, supra*. And the Government admittedly intends to invoke the Induced Surcharge Flood Control Regulation when similar circumstances recur in the future. *See p. 11, supra*. In other words, the Government has unequivocally taken the right to a flowage easement over the downstream properties.

This right to flood private property is legally indistinguishable from the taking of an easement through regulation in *Cedar Point*, and it is substantively identical to the permanent flowage easements awarded by the Texas courts in *Tarrant Regional Water Dist. v. Gragg*, 151 S.W.3d 546 (Tex. 2004) and *Brazos River Authority v. City of Graham*, 354 S.W.2d 99 (Tex. 1961)—two of the cases upon which the Federal Circuit based its analysis of the property rights at issue. *Milton v. United States*, 36 F.4th 1154, 1161 (Fed. Cir. 2022) (citing *Gragg* and *City of Graham*). The final judgments in those cases required the government to pay just compensation in exchange for the right to “flood,” “overflow,” and “inundate” private properties. *See* A3455-71. In the present case, Section 7-05(b) of the Water Control Manual takes that very same right by regulation.

This regulation “requires an owner to suffer a permanent physical invasion of her property,” *Lingle*, 544 U.S. at 538, *i.e.*, a “permanent and continuous right” of access to downstream properties. *Nollan*, 483 U.S. at 832; *see also Ridge Line*, 346 F.3d at 1352 (citing *Nollan*). It makes no difference that this flowage easement is rarely exercised: “The fact that a right to take access is exercised only from time to time does not make it any less a physical taking.” *Cedar Point*, 141 S. Ct. at 2075. And it is “compensable without case-specific inquiry into the public interest advanced in support of the restraint,” *Lucas*, 505 U.S. at 1015, because protected property rights “cannot be balanced away.” *Cedar Point*, 141 S. Ct. at 2077. The Water Control Manual effects a permanent categorical taking, so there is no need for further analysis of liability. The only remaining issue is damages.

B. Independently, the intentional government-induced flooding was a temporary taking of a flowage easement.

Independently, the Government temporarily took a flowage easement through its decision to inundate Plaintiffs’ properties. Temporary taking claims turn on a multi-factor balancing test. Because there is no dispute regarding the facts, the Court can decide this theory as a matter of law. At the very least, Plaintiffs’ temporary taking claim warrants full factual development at trial.

For nearly 150 years, it has been settled that government-induced flooding may result in a taking of private property. *See Arkansas Game*, 568 U.S. at 32 (citing *Pumpelly v. Green Bay Co.*, 80 U.S. 166 (1871)). First, *Pumpelly* held that “where real estate is actually invaded by superinduced additions of water ... so as to effectually destroy or impair its usefulness, it is a taking, with the meaning of the Constitution.” *Pumpelly*, 80 U.S. at 181. Later cases extended the rule to recurring flooding, *Arkansas Game*, 568 U.S. at 32 (citing *United States v. Cress*, 243 U.S. 316 (1917)), as well as intermittent flooding. *United States v. Dickinson*, 331 U.S. 745, 747-51 (1947). This line of authority culminated in *Arkansas Game*, where the Supreme Court held that even a temporary flood event can rise to the level of a taking: “Because government-induced flooding can constitute a taking of property, and because a taking need not be permanent to be compensable,” the Court explained, “government-induced flooding of limited duration may be compensable.” 568 U.S. at 34.

In general, a temporary taking occurs when the government takes “temporary possession” of private property or “government action occurring outside the property [gives] rise to ‘a direct and immediate interference with the enjoyment and use of the land.’” *Id.* at 33 (citations omitted). *Arkansas Game* outlined several factors that determine “the existence *vel non* of a compensable taking” in a temporary flooding case. *Id.* at 38; compare *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 435 n.12 (1982) (temporary invasion cases “are subject to a more complex balancing process to determine whether they are a taking”). They include:

- time/duration of the property invasion;
- intentional or foreseeable result of authorized government action;
- character of the land and reasonable investment-backed expectations; and
- severity of the interference.

See Arkansas Game, 568 U.S. at 38-39; *see also Arkansas Game & Fish Comm’n v. United States*, 736 F.3d 1364, 1369-75 (Fed. Cir. 2013) (“*Arkansas Game II*”) (finding a taking on remand).

Under this multi-factor test, the summary judgment record establishes a series of facts that dictate the legal conclusion that a temporary taking occurred when the Government opened the floodgates and inundated the downstream properties in accordance with its Water Control Manual.

These facts are critical:

- The Government repeatedly promised downstream property owners that it would keep the floodgates closed. *See* pp. 3-5, *supra*.
- The Government could have kept the floodgates closed; the Reservoirs were never in danger of failing. *See* pp. 7-8, *supra* and p. 64, *infra*.
- The Government elected to open the floodgates in accordance with Section 7-05(b) of the Water Control Manual, even though it did not have to do so to avoid any imminent failure. *See id.*
- The Government had actual knowledge that opening the floodgates would flood the downstream property owners. *See* p. 8, *supra*.

These facts, if taken as true, are sufficient to establish a temporary taking under *Arkansas Game* (and to defeat many of the arguments in the Government’s summary judgment motion).

1. Time and duration.

First, when deciding whether a temporary taking occurred in a flooding case, “time is indeed a factor.” *Arkansas Game*, 568 U.S. at 38. Just as a “temporary, unplanned occupation” of a building for less than a day is not a taking, *Nat’l Bd. of YMCA v. United States*, 395 U.S. 85, 87-88, 93 (1969) (quoted in *Arkansas Game*), a brief flooding event may not constitute a taking. On the other hand, it is not necessary to prove that the impacts of the flooding were as prolonged as in *Arkansas Game*, *Arkansas Game II*, 736 F.3d at 1370, because the Supreme Court’s decision in that case reaffirmed that the ““temptation to adopt what amount to *per se* rules in either direction must be resisted.”” *Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg’l Planning Agency*, 535 U.S. 302, 342 (2002) (citation omitted) (cited in *Arkansas Game*).

Here, the government-induced flooding was not a fleeting episode but lasted for several days—and in some cases, for two weeks. *See* p. 11, *supra*. Its consequences deprived the property owners of the use and enjoyment of their property for months. *Id.* Residential property owners were displaced from their homes for several months, and some were still unable to return nearly a year later. *Id.* Commercial property owners were unable to reopen their businesses or resume their normal operations for months. *Id.* Thus, this government-authorized flooding event “is properly viewed as having lasted” for the entire duration of these impacts. *Arkansas Game II*, 736 F.3d at 1370.

2. Severity.

“Severity of the interference figures in the calculus as well.” *Arkansas Game*, 568 U.S. at 39. The imprecise boundary between a tort and a taking turns on whether a landowner suffered not just a financial loss, but ““a direct and immediate interference with the enjoyment and use of the land.”” *Id.* at 33 (citation omitted); *see also Ridge Line*, 346 F.3d at 1355-56 (courts must consider whether “the government’s actions were sufficiently substantial to justify a takings remedy,” an inquiry that turns in part on “the nature and magnitude of the government action” and whether those actions “preempt the owner’s right to enjoy his property for an extended period of time”). The severity of the flooding event is critical to this consideration.

Here, the government-induced flooding caused severe interference with the use and enjoyment of Plaintiffs’ properties. Many properties suffered catastrophic damage, making them totally unusable for the purposes for which they were purchased. *See* p. 11, *supra*. In the harrowing hours after the government discharges began, many of the property owners had to be evacuated from their homes—several by boat. *Id.* at 9. Numerous residences suffered hundreds of thousands of dollars in damages—not to mention the loss of personal property. *Id.* at 11. One commercial owner estimates that repairing the flood damage will cost \$17 million. *Id.* By any measure, this flooding event was severe.

In *Arkansas Game*, the Federal Circuit found a “severe burden” based on lower-court findings that government-induced flooding ““so profoundly disrupted”” the property in question that its owner ““could no longer use those regions for their intended purposes.”” *Arkansas Game II*, 736 F.3d at 1370. Even in areas that had some history of minor flooding, after the government acted “the flooding lasted for significantly longer periods of time and had much more serious consequences.” *Id.* at 1374. Here, as in *Arkansas Game*, the interference with property rights exceeded “a range that the property owner could have reasonably expected to experience in the natural course of things.” *Id.* at 1375.

Indeed, for so long as their properties were flooded (nearly two weeks for some properties), the downstream property owners were totally ousted. *See* p. 11, *supra*. They were not just unable to use the land for its intended purpose, but unable to access the land altogether during this period. There is no doubt that complete ouster is a taking. *Lingle*, 544 U.S. at 539.

Even after the induced surcharges stopped and the waters receded, Plaintiffs could not use their properties for their intended purposes (as homes and businesses) for months. *See* p. 11, *supra*. Just as the interference was found to be severe in *Arkansas Game* because that property owner “had been deprived of the customary use” of its flooded property, *Arkansas Game*, 568 U.S. at 39, the flooding of Plaintiffs’ residences and businesses deprived their owners of the “customary use” of those properties. These facts are plainly severe enough to constitute a taking.

3. Intent and foreseeability.

The Supreme Court instructs courts to consider “the degree to which the invasion is intended or is the foreseeable result of authorized government action.” *Arkansas Game*, 568 U.S. at 39. Tellingly, on remand in *Arkansas Game*, the Federal Circuit found a taking because the government “could have foreseen” that its acts “would lead to substantial increased flooding” of the property. *Arkansas Game II*, 736 F.3d at 1373. The evidence in this case is infinitely stronger.

The government-induced flooding in this case was indisputably authorized and intentional. The Government made a deliberate choice to open the floodgates as authorized by Section 7-05(b) of the Water Control Manual, and it was aware that doing so would flood the downstream properties. *See* pp. 7-8, *supra*. The Government possessed flow maps that indicated, with startling precision, the particular properties that would be flooded if the floodgates were opened at various flow rates. *See* p. 8, *supra*. Armed with this knowledge, the Government ordered the induced surcharges in accordance with Section 7-05(b) and with the approval of its command hierarchy. *See* p. 7, *supra*. The officer who gave the fateful order to open the floodgates “understood” that by opening the gates, “there would potentially be impacts downstream.” *See* p. 8, *supra*. The Corps “had discussions” with “a lot of people” in the chain of command about the flooding that would result. *Id.*

This knowledge was highly particularized. The Government had prepared detailed maps identifying the particular areas that would be flooded by induced surcharge releases, as well as the extent of the flooding that would result. *See* p. 8, *supra*. Indeed, the Government actually knew, based on its flow maps, precisely which properties would flood when the floodgates were opened at particular flow rates. *Id.* Thus, the flooding of Plaintiffs’ properties was not just foreseeable—it was actually foreseen, and it occurred precisely as predicted by the Government’s flow maps.

As such, this is not a case requiring a nuanced analysis of foreseeability in which the Court must distinguish “predictable” or “probable” results from “incidental or consequential” injuries. *Ridge Line*, 346 F.3d at 1355-56 (citation omitted). It is undisputed that the Government made a deliberate and calculated decision to flood Plaintiffs’ properties in the interest of the public good. Because this invasion was “intended” and “the foreseeable result of authorized government action,” *Arkansas Game*, 568 U.S. at 39, Plaintiffs suffered a taking of their property as a matter of law.

4. Character of the land and reasonable investment-backed expectations.

The Supreme Court instructs courts to consider “the character of the land at issue and the owner’s ‘reasonable investment-backed expectations’ regarding the land’s use.” *Arkansas Game*, 568 U.S. at 39 (citation omitted). In *Arkansas Game*, the Court found it significant that the land “had not been exposed to flooding comparable to [this event] in any other time span.” *Id.*

Here, the “character of the land at issue” is largely comprised of residences (along with a number of commercial properties). The test property owners acquired their properties between 1976 and 2015, and none was aware of any prior flooding at the time of purchase. *See* p. 6, *supra*. None had ever experienced flooding “comparable” to this event. *Arkansas Game*, 568 U.S. at 39; *see* pp. 9-10, *supra*.

Plaintiffs all acquired their properties in reliance on the expectation that the Government would not flood downstream properties. *See* pp. 5-6, *supra*. That reliance was entirely reasonable. The “Normal Flood Control Regulation” for the Reservoirs provides that the gates will remain closed “as long as necessary to prevent flooding below the dams.” A49. The Government followed this official policy for decades. *See* pp. 3-5, *supra*. In 2009, the Government assessed the risk of upstream and downstream flooding in light of increased development in the area and stated that “[t]he dams are operated strictly to prevent downstream flooding; **therefore, the gates remain shut even if pool levels increase and flood upstream properties.**” A181 (emphasis added). In 2016—just one year before these events—the Government published an unequivocal reassurance to citizens in the most widely-read newspaper in Houston: “**We will not open the dam to a point where it will cause flooding downstream.**” A3331-32 (emphasis in original); *see also* p. 5, *supra*. Given these public statements, it was perfectly reasonable for the downstream property owners to anticipate that the Government would not open the floodgates and inundate the downstream properties.

In addition, the Government did not publicize its intention to flood downstream properties under certain circumstances pursuant to its “Induced Surcharge Flood Control Regulation,” and it had never used that procedure before Tropical Storm Harvey. *See* pp. 7-8, *supra*. Little wonder, therefore, that none of the test property owners was aware of the Manual or the possibility that the Government might flood their properties by releasing water from the Reservoirs. *See* pp. 6-7, *supra*.

Furthermore, while reasonable investment-backed expectations must be based on the time the property was acquired—when none of the test property owners was aware of prior flooding—subsequent events reinforced the reasonableness of the owners’ expectations. Prior to this event, nine of the test properties had never experienced any flooding, while four had experienced only minor flooding that paled in comparison to the induced surcharges. *See* p. 10, *supra*. Accordingly, the test property owners “had not been exposed to flooding comparable” to the induced surcharges. *Arkansas Game*, 568 U.S. at 39. For that reason, this case fits neatly in the ambit of *Arkansas Game*. At the very least, the reasonableness of the property owners’ expectations presents a fact issue for trial. *See, e.g., Anaheim Gardens, L.P. v. United States*, 953 F.3d 1344, 1349-51 (Fed. Cir. 2020).

Finally, the fact that Plaintiffs purchased property after the Reservoirs had been constructed, and after the Government had decided to flood downstream properties under certain circumstances, does not defeat their reasonable expectations. Owners’ property rights are not extinguished simply “because they acquired the land well after the [Government] had begun to implement its policy.” *Nollan*, 483 U.S. at 833 n.2. The Supreme Court has repudiated “[a] blanket rule that purchasers with notice have no compensation right when a claim becomes ripe.” *Palazzolo v. Rhode Island*, 533 U.S. 606, 628 (2001). “A valid takings claim will not evaporate just because a purchaser took title after the law was enacted.” *Murr v. Wisconsin*, 137 S. Ct. 1933, 1945 (2017). And in this case, Plaintiffs had no notice of the Government’s plan to flood their properties. *See* pp. 7-8, *supra*.

To be sure, there are cases in which it is an “undisputed material fact” that a given purchaser “was a sophisticated investor that purchased its property with knowledge about the effects” of the existing legal framework. *Anaheim Gardens*, 953 F.3d at 1351. But this plainly is not such a case. Plaintiffs had no notice of the Induced Surcharge Flood Control Regulation, so they had reasonable, investment-backed expectations that their properties would not be subject to a flowage easement.⁵

In sum, Plaintiffs have established a temporary taking under the multi-factor test set forth in *Arkansas Game* as a matter of law. At the very least, Plaintiffs’ temporary taking claim is supported by substantial evidence and it warrants full factual development at trial.

C. The Government’s *Ridge Line* arguments are immaterial to a permanent taking and insufficient to foreclose a temporary taking after *Arkansas Game*.

Unable to prevail under the multi-factor balancing test for temporary takings prescribed by *Arkansas Game*, the Government turns back the clock by relying on *Ridge Line, Inc. v. United States*, 346 F.3d 1346 (Fed. Cir. 2003). *See* MSJ at 51-57. Some aspects of *Ridge Line* are still good law, but its two-part test for distinguishing torts from takings is no longer valid after *Arkansas Game*. Importantly, the Supreme Court referred to *Ridge Line* only once—with a “*see also*” citation. *Arkansas Game*, 568 U.S. at 522. And *Cedar Point* made clear that *Arkansas Game* represents the controlling test. *Cedar Point*, 141 S. Ct. at 2078-79. Thus, to the extent the Government’s reliance on the *Ridge Line* analysis conflicts with *Arkansas Game*, it is based on obsolete law.

⁵ As noted above, to the extent the Government has effected a categorical taking via the Manual, the Federal Circuit holds that “‘reasonable investment-backed expectations’ are not a proper part of the analysis.” *Palm Beach Isles Assocs. v. United States*, 231 F.3d 1354, 1364 (Fed. Cir. 2000); *Preseault v. United States*, 100 F.3d 1525, 1540 (Fed. Cir. 1996) (“The Government’s attempt to read the concept of ‘reasonable expectations’ as used in regulatory takings law into the analysis of a physical occupation case ... is rejected categorically.”).

1. The Government’s reliance on *Ridge Line* is inapposite to Plaintiffs’ claim that the Water Control Manual effects a permanent, categorical taking.

First, the Government’s reliance on *Ridge Line* is inapposite to the permanent taking claim. As the Government acknowledges, the whole point of the *Ridge Line* analysis was to differentiate a tort from a taking in the context of a temporary flooding event. MSJ at 51-52. There is no need (and no basis) to draw this distinction when the Government takes a permanent easement.

As explained above, *Cedar Point* holds that one key distinction between a tort and a taking is whether an invasion occurred pursuant to a granted right of access: “Isolated physical invasions, *not undertaken pursuant to a granted right of access*, are properly assessed as individual torts....” *Cedar Point*, 141 S. Ct. at 2078 (emphasis added). Thus, classifying a regulation that grants a “right of access” to private property as a permanent taking “does nothing to efface the distinction between trespass and takings.” *Id.* No analysis of other factors is required (or even permitted), because protected property rights “cannot be balanced away.” *Id.* at 2077.

Thus, *Cedar Point* forecloses the Government’s reliance on *Ridge Line* with respect to the permanent taking claim. *See id.* at 2076-78. An invasion of private property “undertaken pursuant to a granted right of access” is a permanent, categorical taking that requires no additional analysis. *Id.* at 2078. Because this case falls into that category, it falls within the rationale of *Cedar Point*.

2. The Government’s reliance on *Ridge Line* does not defeat Plaintiffs’ claim that the inundation of their properties constituted a temporary taking.

In addition, the Government’s reliance on *Ridge Line* does not defeat Plaintiffs’ claim that the deliberate decision to inundate the downstream properties constituted a temporary taking of a flowage easement. The Government focuses on the “intent” and “severity” prongs of *Ridge Line*, MSJ at 52-57, but it mischaracterizes both the continuing vitality of that test after *Arkansas Game* and the summary judgment record.

First, the Government seeks to transform the “intent” prong of the *Ridge Line* test into a new vehicle for its discredited effort to impose a “perfect flood control” limit on property rights, arguing that the true cause of the flooding was Tropical Storm Harvey and not the Government’s deliberate choice to open the floodgates. MSJ at 52-56. The Government has already led the Court down this path once, only to be reversed; its invitation to repeat the error should be rejected.

The Supreme Court has made clear that the relevant inquiry is “the degree to which the invasion is intended or is the foreseeable result of authorized government action.” *Arkansas Game*, 568 U.S. at 39. As explained above, the summary judgment record conclusively establishes that the Government intended to inundate the downstream properties when it opened the floodgates; the flooding that ensued was not merely “the foreseeable result of authorized government action,” *id.*, but was actually foreseen by the Government. *See* p. 8, *supra*. The Government offers no credible argument to the contrary.

The Government’s reliance on *Ridge Line* does not alter this result. The Government claims “Plaintiffs must show that the flooding of their properties in connection with Hurricane Harvey was intended, or should be deemed intended, *because* it was the ‘direct, natural, or probable result of an authorized activity and not the incidental or consequential injury inflicted by the action.’” MSJ at 52 (quoting *Ridge Line*) (emphasis added). But that is not the law. Neither *Arkansas Game* nor *Ridge Line* requires evidence of such a causal nexus as a prerequisite to a finding of intent. *Ridge Line* supports a taking when “the government intends to invade a protected property interest *or* the asserted invasion is the ‘direct, natural, or probable result of an authorized activity and not the incidental or consequential injury inflicted by the action.’” *Ridge Line*, 346 F.3d at 1355 (emphasis added, citation omitted). The latter inquiry is necessary only when a plaintiff “does not allege that the government intentionally appropriated its property.” *Id.* at 1356.

In other words, evidence that an invasion of private property was the foreseeable result of authorized government action (in the words of *Arkansas Game*) will support an inference of intent, distinguishing deliberate invasions of private property from “incidental” or “consequential” effects of government actions that may constitute a tort but not a taking. In this case, there is no need to infer the Government’s intent to invade private property; that fact is conclusively established by the summary judgment record.

In any event, the summary judgment record also conclusively establishes that inundation of the downstream properties was “the foreseeable result of authorized government action,” *Arkansas Game*, 568 U.S. at 39, *i.e.*, “the predictable result of the government action.” *Ridge Line*, 346 F.3d at 1356. Indeed, *Ridge Line* itself held that this test is satisfied when government action “initiated a series of events, all in their natural order, by which the landowner was deprived of the beneficial use of portions of its land.” *Id.* (citing *Cotton Land Co. v. United States*, 109 Ct. Cl. 816, 75 F. Supp. 232, 232-35 (1948)) (cleaned up). That is precisely what happened in the present case. And *Ridge Line* quoted this test with approval: “If engineers had studied the question in advance, they would, we suppose, have predicted what occurred.” *Id.* at 1357 (quoting *Cotton Land*). Here, the Army Corps of Engineers *did* study the question in advance and *did* predict what occurred. *See* p. 8, *supra*. On this record, therefore, foreseeability is established as a matter of law.

The Government’s only answer to this evidence is to insist that “the focus of the analysis should be at the time the government acted to address the flood risk—which is when the Corps constructed the Project beginning in the 1940s.” MSJ at 55. That argument is simply incorrect. The government action in question is the decision to open the floodgates, not construction of the Addicks and Barker Reservoirs decades ago, and the Government has no right to recast the claim and thereby extinguish the evidence that it deliberately inundated the downstream properties.

As support for its attempt to reframe the foreseeability inquiry, the Government relies on *John Horstmann Co. v. United States*, 257 U.S. 138 (1921), and *Arkansas Game II*. MSJ at 55. But those cases prove our point, as both tested the evidence of foreseeability at the time of the government action alleged to constitute a taking—not at some different point in time.

In *John Horstmann*, for example, the plaintiffs complained about the consequences of a federal construction project that had transported waters from the watershed of one river to another, resulting in a rise in ground water that adversely affected the value of lakes owned by the plaintiffs. See *John Horstmann*, 257 U.S. at 142-43. The Court of Claims “found that there is obscurity in the movement of percolating waters [*i.e.*, ground water], and that there was no evidence to remove it in the present case, and necessarily there could not have been foresight of their destination nor purpose to appropriate the properties.” *Id.* at 146. The Supreme Court held “it would border on the extreme to say that the government intended a taking by that which no human knowledge could even predict.” *Id.* Thus, foreseeability was judged at the time of the action in question.

Likewise, the plaintiff in *Arkansas Game* argued that “the Corps’ water release practices between 1993 and 2000 constituted a compensable Fifth Amendment taking,” *Arkansas Game II*, 736 F.3d at 1368, and the Federal Circuit upheld a finding of foreseeability by citing evidence that “a reasonable investigation by the Corps of Engineers prior to implementing the deviations during the 1993–2000 period would have revealed that the deviations would result in a significant increase in the number of days of flooding” *Id.* at 1373. The Federal Circuit did not find it necessary to search for evidence of foreseeability “from the beginning of the deviation period in 1993,” *id.*, because the government was aware of the effects of its policies “during the deviation period.” *Id.* Likewise, in this case the Government foresaw the flooding of downstream properties at the time of the action in question—namely, the induced surcharge releases.

In sum, the evidence of foreseeability is conclusive. Even the Government admits that it “understood that surcharge releases during the hurricane would exceed the non-damaging capacity of Buffalo Bayou.” MSJ at 56. That euphemistic language is a polite way of conceding that the flooding of downstream properties was “the foreseeable result of authorized government action.” *Arkansas Game*, 568 U.S. at 39. Nothing more is required.

For this reason, the Government’s assertion that the flooding of downstream properties was not a “direct, natural, or probable result” of its conduct, but an “incidental or consequential injury,” misses the mark. MSJ at 52-55. The Government is simply quoting the outdated *Ridge Line* test as a pretext to resurrect its failed “perfect flood control” theme (and deflect its responsibility for Plaintiffs’ losses) by suggesting there is a *per se* rule against takings liability in cases that involve “unprecedented rainfall,” *id.* at 52, as to which the Government’s conduct was merely “secondary.” *Id.* at 52, 54. Because the inundation of Plaintiffs’ properties was both intended and foreseeable (in the language of *Arkansas Game*) or predictable (in the language of *Ridge Line*) at the time the Government opened the floodgates, there is no *per se* rule excusing the Government from a taking on this basis—and the cases cited by the Government do not support that outcome.⁶

⁶ One case cited by the Government involved flooding that could not have been foreseen at the time of the action in question—unlike this case. See *Columbia Basin Orchard v. United States*, 132 F. Supp. 707, 711 (Ct. Cl. 1955) (the government “could not have foreseen” that the discharge of water from one site would cause a distant lake “to overflow or seep into plaintiffs’ spring”). Another case turned on the plaintiffs’ inability to prove causation—not a *per se* rule foreclosing takings liability in cases involving significant rain. See *Bartz v. United States*, 633 F.2d 571, 577 (Ct. Cl. 1980). As we shall explain, this case is very different from *Bartz* on the issue of causation. See pp. 33-49, *infra*. The third case was not even a flooding case, but it referred to the proposition that plaintiffs in such cases must prove that flooding is an “inevitably recurring” consequence of the government action in question. *Wilfong v. United States*, 480 F.2d 1326, 1329 (Ct. Cl. 1973). The Supreme Court granted certiorari in *Arkansas Game* to test the viability of that proposition, *Arkansas Game*, 568 U.S. at 31, and squarely rejected it: “No decision of this Court authorizes a blanket temporary-flooding exception to our Takings Clause jurisprudence, and we decline to create such an exception in this case.” *Id.* at 34. The Government’s cases will not bear the weight the Government seeks to place on them.

In truth, the Government’s argument on this point is a thinly-veiled attempt to resurrect its straw-man argument that the downstream property owners had no right to “perfect flood control.” The Government contends that rainfall and runoff was “the direct or root cause of the flooding,” while “the government’s role in the downstream flooding was secondary to the severe rainfall.” *Id.* at 53-54. Because “Hurricane Harvey was the source of all of the water flowing through the Project’s infrastructure during the time period at issue in this case,” *id.* at 54, the Government reasons that the flooding was solely “attributable to this rare and record-setting rainfall event.” *Id.* This rhetoric has nothing to do with the legal test for intentional or foreseeable consequences under *Arkansas Game* (or, for that matter, *Ridge Line*) and it contradicts the summary judgment record. The Government implies that downstream flooding was inevitable, but in fact, the Reservoirs were performing as intended, were never in danger of failing, and could have contained the rainfall and runoff from Harvey without flooding the downstream properties. *See* p. 7, *supra* and p. 64, *infra*. The Government chose to inundate the downstream properties because the Water Control Manual dictated that action—not because the Government was powerless to contain the rainfall and runoff. *Id.* The Government’s repeated rhetorical flourishes to the contrary are simply untrue.

Finally, the Government invokes the “frequency” element of *Ridge Line* to deny liability, arguing that the “singular” nature of Tropical Storm Harvey and the lack of “any prior flooding” of downstream properties precludes a taking claim. MSJ at 56-57. This one-free-flood defense is just the sort of “blanket exclusionary rule[]” that was rejected by *Arkansas Game*, 568 U.S. at 37, where the Supreme Court clarified that “government-induced flooding temporary in duration gains no automatic exemption from Takings Clause inspection.” *Id.* at 38. These facts may be weighed in the multi-factor balancing test, *id.* at 38-39, but as explained above, there is evidence to establish every factor of the *Arkansas Game* test.

II. The Induced Surcharges Caused a Taking of Plaintiffs' Property.

It is undisputed that, if the Corps had not opened the floodgates, Plaintiffs would have suffered no or less flooding. *See pp. 9-10, supra*. That fact is sufficient to establish causation. Seeking to avoid that conclusion, the Government argues that causation analysis should compare the flooding the Plaintiffs actually experienced against a but-for world without the Reservoirs. MSJ at 24-34. That approach makes no sense. Proper but-for causation analysis must compare the flooding that Plaintiffs actually experienced against a world in which the Government did not engage in the affirmative action alleged to be taking—namely, opening the floodgates.

This conclusion is theoretically correct, common sense, and consistent with existing law. If there were any doubt, moreover, it is likely to be resolved by the forthcoming decision of the Federal Circuit in No. 2021-1849, -1875, *Ideker Farms, Inc. v. United States*. That pending appeal presents the question whether but-for causation analysis in flooding cases must take into account the reasonable expectations of property owners who rely on government flood-control projects. The CFC in *Ideker Farms* answered that question “yes,” *see Ideker Farms, Inc. v. United States*, 142 Fed. Cl. 222 (2019), based on a test set forth in *Hardwicke Co. v. United States*, 467 F.2d 488 (Ct. Cl. 1972), and recently discussed in *St. Bernard Parish Gov’t v. United States*, 887 F.3d 1354 (Fed. Cir. 2018). That ruling was correct and is likely to be affirmed.

Under that test, there is no question that the downstream property owners in this case were entitled to rely on the existence of the Reservoirs and the longstanding policy of the Government to operate the Reservoirs in a manner that would prevent the inundation of downstream properties. It is no exaggeration to state that, since the Reservoirs were constructed more than 70 years ago, the entire downstream corridor of West Houston has been developed in reliance on the protection they have afforded from downstream flooding. The property owners had no reason to contemplate that the Government would withdraw that protection. When it did so, it caused a taking.

The answer could hardly be otherwise without making a mockery of the Fifth Amendment. As the *Ideker Farms* plaintiffs have powerfully demonstrated, many of the most prominent cities in the United States were built and developed in reliance on government flood-control projects—including Boston’s Back Bay, lower Manhattan, the San Francisco Bay area, and Chattanooga. A3472-574. The idea that the government could flood these immensely valuable urban areas without any consequence under the Fifth Amendment is unthinkable. Rather, as an amicus brief by the U.S. Chamber of Commerce in *Ideker Farms* cogently explains, a test for but-for causation that protects reliance interests is essential to stimulate economic investment in property augmented by flood-control projects and to respect reasonable, investment-backed expectations. A3586-606. Here, that test requires a comparison to a but-for world in which the Reservoirs were in existence and the floodgates remained closed—as property owners have contemplated for six decades.

A. But-for causation analysis in this case requires a comparison between the flooding that occurred and a but-for world in which the floodgates remained closed.

But-for causation “requires a showing of ‘what would have occurred’ if the government had not acted.” *St. Bernard Parish Gov’t v. United States*, 887 F.3d 1354, 1362 (Fed. Cir. 2018) (quoting *United States v. Archer*, 241 U.S. 119, 132 (1916)). “[A] plaintiff must show that in the ordinary course of events, absent government action, plaintiffs would not have suffered the injury.” *Id.* Plaintiffs contend the “government action” in question is the decision to open the floodgates, while the Government contends it is the construction (*i.e.*, the very existence) of the Reservoirs.

In other words, the parties agree that—as the Federal Circuit noted in its remand order—“causation analysis must consider the impact of the entirety of government actions that address the relevant risk.” *Id.* at 1364; *see also Milton*, 36 F.4th at 1163 (quoting this test). But they dispute *how* that causation analysis should be undertaken in cases, like this one, in which property owners have reasonable, investment-backed expectations based on long-standing flood-control policies.

1. The test for but-for causation must take into account property owners' reasonable expectations about the protection afforded by preexisting federal flood-control projects.

Many flooding cases involve complaints about particular aspects of flood-control projects, as property owners complain that specific aspects of such projects increased the risk of flooding while ignoring other aspects that reduced the risks. *St. Bernard Parish* illustrates such a scenario, as the plaintiffs complained about the construction and operation of one feature of a federal project (the MRGO channel) but ignored another feature (the LPV project). *See* 887 F.3d at 1363-64. Unsurprisingly, the Federal Circuit rejected this approach and held that the causation analysis had to account for “the whole of the government action,” not isolated government actions. *Id.* at 1364. Thus, the but-for causation inquiry had to take account of both the risk-increasing action (MRGO) and the risk-decreasing action (LPV) that constituted the total government action. *Id.*

But causation is a fact-specific issue. Given “‘the fact-intensive nature of takings cases,’” *Milton*, 36 F.4th at 1163 (citation omitted), the Supreme Court has warned that “no magic formula enables a court to judge, in every case, whether a given government interference with property is a taking” and there are “few invariable rules in this area.” *Arkansas Game*, 568 U.S. at 31. Thus, with respect to causation—as with every other aspect of takings analysis—“most takings claims turn on situation-specific factual inquiries.” *Id.* at 32. “Flooding cases, like other takings cases, should be assessed with reference to the ‘particular circumstances of each case,’ and not by resorting to blanket exclusionary rules.” *Id.* at 37 (citation omitted). Consistent with that principle, the but-for causation analysis in each case must be calibrated to the particular government action alleged to constitute a taking and the particular facts of each case. *St. Bernard Parish*, for example, recognized that its analysis of but-for causation might have been different if the government action had taken place against a long-standing backdrop of flood protection. 887 F.3d at 1367 & n.14 (discussing *John B. Hardwicke Co. v. United States*, 467 F.2d 488 (Ct. Cl. 1972)).

St. Bernard Parish referred to the but-for causation test that would apply to such a situation: “[I]f the risk-reducing government action preceded the risk-increasing action, the risk-reducing action would only be considered in assessing causation if the risk-increasing action was ‘contemplated’ at the time of the risk-reducing action.” *Id.* Put another way, if a property owner contemplates that the government will take an action that will increase flood risks to his property, he cannot justifiably expect previous flood-control efforts that reduced such risks to be permanent; in such a case, but-for causation must consider both the risk-increasing and risk-reducing activities. By contrast, if a property owner has no reason to contemplate that the government will take actions to increase the risk of flooding in the future, he may justifiably expect existing flood-control efforts to be continued; in such a case, those efforts establish the baseline of the but-for comparison.

This rule was set forth in *John B. Hardwicke* and recently discussed in *St. Bernard Parish*. In *Hardwicke*, the court explained that when the government engages in risk-decreasing actions (such as construction of a flood-control project) and then later engages in a risk-increasing action (such as inundating properties downstream of the project), the but-for causation inquiry need not consider the earlier risk-decreasing actions if property owners “could have reasonably supposed” that their land “could benefit” from the risk-decreasing actions “yet be free of the disadvantages” of subsequent risk-increasing actions. *Hardwicke*, 467 F.2d at 491. This inquiry is not subjective, but objective, and it is made from the perspective of the property owner. *Id.* at 490-91.

In other words, if property owners reasonably rely on federal flood-control projects and have no reason to expect that the government will frustrate those reliance interests in the future (by taking actions to cause flooding that would have been avoided by the flood-control projects), those existing protections become part of the baseline for purposes of but-for causation analysis. This common-sense approach assures “just compensation” under the Fifth Amendment.

Hardwicke illustrates how this analysis should be performed. In that case, a property owner brought a takings lawsuit after the government closed the gates of a downstream diversion dam (the Anzalduas dam), which forced water to pool upstream and inundate the plaintiff's property. *Hardwicke*, 467 F.2d at 488. The Anzalduas dam had been contemplated by a treaty with Mexico. *Id.* at 488-89. Under the same treaty, the government had previously constructed a storage dam upstream from the plaintiff's property (the Falcon dam), which had reduced flooding on the plaintiff's land and increased its value. *Id.* at 489. Although this benefit was diminished when the Anzalduas dam was later constructed, "the expectation of flooding was still far less than it would have been if there had been no flood control program at all." *Id.* at 489-90.

For purposes of causation, the critical fact was that "a buyer of land in the neighborhood . . . knew or should have known that the flood control plan agreed upon with Mexico contemplated the construction of both storage and diversion dams." *Id.* at 490. "There was no time when plaintiffs or their predecessors in title could have reasonably supposed that land near Mission Inlet could benefit from the impoundment of water at Falcon, yet be free of the disadvantages that might arise from the [Anzalduas] dam, when built and in use." *Id.* at 491. The court looked to evidence of objective expectations (*i.e.*, probability), rather than evidence of actual or subjective beliefs. *Id.* There was a "sufficient probability" that Anzalduas would be built after Falcon, so plaintiffs could not reasonably rely on the protections afforded by the Falcon dam to reset the causation baseline. In these circumstances, but-for causation analysis had to consider both the risk-decreasing activity (the Falcon dam) and the subsequent risk-increasing activity (the Anzalduas dam). *Id.* On balance, the flood-control project had reduced the risk of flooding, so the *Hardwicke* court denied relief based in part on a lack of but-for causation. *Id.* at 490-91. But as *St. Bernard Parish* recognized, the result would have been different if the reasonable expectations had been different.

The *Hardwicke* rule regarding causation is precedential here, *South Corp. v. United States*, 690 F.2d 1368, 1369-71 (Fed. Cir. 1982), and it derives directly from Supreme Court authority. *Hardwicke* relied on *United States v. Miller*, 317 U.S. 369 (1942), where the Supreme Court noted that if land is condemned, “other lands in the neighborhood may increase in market value due to the proximity of the public improvement erected on the land taken.” *Id.* at 376. If at a later date, the government decides to take these other lands, “it must pay their market value as enhanced by this factor of proximity.” *Id.* But if “the public project from the beginning included the taking” of these other lands, their owners are not entitled to recover the increased value. *Id.* at 376-77. The inquiry focuses on whether the other lands “were probably within the scope of the project from the time the Government was committed to it.” *Id.* at 377.

In this manner, *Miller* accounts for property owners’ reasonable expectations in reliance on government projects. *Miller* rejects a categorical rule that every benefit that the government has previously conferred upon the landowner must be discounted in awarding just compensation. Rather, if the government bestows a benefit at a time when a later detriment is not contemplated, and then later takes the appreciated property, just compensation includes the value of the benefit. *See, e.g., United States v. Fuller*, 409 U.S. 488, 492-93 (1973) (“The Government may not demand that a jury be arbitrarily precluded from considering as an element of value the proximity of a parcel to a post office building, simply because the Government at one time built the post office.”); *United States v. Reynolds*, 397 U.S. 14, 16-21 (1970) (reaffirming the *Miller* doctrine).

In *Hardwicke*, the Court of Claims extended the *Miller* doctrine to but-for causation. *Hardwicke*, 467 F.2d at 490; *see also Love Terminal Partners, L.P. v. United States*, 889 F.3d 1331, 1347 (Fed. Cir. 2018) (“We have also found that the *Miller* rule applies to the question of whether property has been taken in the first place.”). Thus, this causation test is orthodox law.

The *Hardwicke* rule is also consistent with Supreme Court takings-by-flooding authority. For example, while the Government relies on *United States v. Sponenbarger*, 308 U.S. 256 (1939), MSJ at 25, 29, that case does **not** support a but-for comparison to a world without flood protection. In *Sponenbarger*, the plaintiff alleged “the Mississippi Flood Control Act of 1928 and construction contemplated by that Act” had caused flooding and effected a taking of her property. *Id.* at 260. In assessing causation, the Court compared the consequences of the 1928 Act to the but-for world that existed prior to that Act—a baseline that included the benefits of “a continuous line of levees along both banks of the Mississippi” that had been constructed since 1883. *Id.* at 261.

Importantly, the district court’s findings accounted for these prior flood-control activities. Rather than contrasting the effects of the 1928 Act to a but-for world without any flood protection, the district court found that “respondent’s property has not been subjected to any servitude from excessive floodwaters, which did not already exist before 1928. She still enjoys the same benefits from the Cypress Creek drainage system as when it was created before 1928, and the government program has not ‘in any wise, nor to any extent increased the flood hazard thereto.’” *Id.* at 263. “Levee protection to lands such as plaintiff’s has not been reduced.” *Id.*

Defending these findings, the government contended that causation should be judged by comparing circumstances before and after the 1928 Act. *See* Br. for the United States in No. 72, *United States v. Sponenbarger*, 1939 WL 48668, at *48 (arguing that “the work done pursuant to the 1928 Act had in no way reduced the levee protection to respondent’s property or increased the flood hazard thereto”). The government argued that its conduct should be “[t]aken as a whole,” *id.*, but that statement was a reference to concurrent actions by the Mississippi River Commission, **not** the preexisting levees. *See id.* at *49 n.25 (arguing that “all acts done by the United States” included “other and **contemporaneous** acts directed at the same general end”) (emphasis added).

As such, the broad language of the Supreme Court’s opinion must be read in the context of the district court’s findings and the Court’s precise holding. The Court upheld the district court’s findings and focused its holding on “the program of improvement under the 1928 Act,” *id.* at 265, not the entire history of flood-control projects in the Mississippi River Valley. Making clear that its baseline included the preexisting levees, the Court explained that the plaintiff’s property was no worse off after the 1928 Act than during “the 1927 flood which submerged it to a depth of fifteen or twenty feet and swept it clear of buildings.” *Id.* at 266. Because “the District Court justifiably found that the program of the 1928 Act has greatly reduced the flood menace to [plaintiff’s] land by improving her protection from floods,” *id.* at 267, no taking had occurred. Therefore, the holding of *Sponenbarger* is consistent with the *Hardwicke* analysis.

Another case decided the same day as *Sponenbarger* conforms this approach to causation. *Danforth v. United States*, 308 U.S. 271 (1939), also arose out of the 1928 Act. *Id.* at 277-78. Prior to the passage of the 1928 Act, there were already levees along the banks of the Mississippi. *Id.* at 277. Some of those preexisting levees had been “created by the Act of Congress of 1879” and paid for by the United States. *Danforth v. United States*, 105 F.2d 318, 319 (8th Cir. 1939). The preexisting levees were referred to as “riverbank levees,” 308 U.S. at 278, and the 1928 Act contemplated a second set of levees “about five miles from the riverbank levee,” *id.* at 277-78, which were known as “set-back levees.” *Id.* at 278. The 1928 Act lowered the riverbank levees at specific points and routed floodwaters onto tracts lying between the riverbank and set-back levees, returning the waters to the main channel south of Cairo, Illinois. *Id.* at 278. The tract in question was between the set-back and riverbank levees. *Id.* at 278, 286. The government had offered to acquire a perpetual flowage easement in 1932, *id.* at 280, but before construction was completed and compensation was paid, the tract was flooded in 1937. *Id.* at 279.

There was no dispute that a taking had occurred; the question was *when* it had occurred. The Court explained that “[t]he Government could become liable for a taking, in whole or in part, even without direct appropriation, by such construction as would put upon this land a burden, actually experienced, of caring for floods greater than it bore prior to the construction.” *Id.* at 286. But the Court noted that the riverbank levee had “not been lowered from its previous height,” *id.*, and thus “the land is as well protected from destructive floods as formerly.” *Id.* In other words, the Court compared the effects of the 1928 Act to the preexisting flood protections—not a baseline without any flood protection. Based on this analysis, the Court held the property was not taken until the government paid for it—not at any earlier date. *See id.* at 283-87.

The Government also relies on *United States v. Archer*, 241 U.S. 119 (1916), MSJ at 29, but that decision also proves our point. In *Archer*, the construction of a dike on the plaintiffs’ land “greatly increased and intensified” overflow flooding from the Mississippi River compared to the conditions that had existed under an existing levee system. 241 U.S. at 124. The Court noted that, although the levee system had increased overflows, “before the erection of the dike the overflows did not materially damage the plantation, and it remained still valuable for agricultural purposes.” *Id.* But the dike had resulted in overflows of “greater force and depth . . . in consequence of which the overflows of the plantation have been greatly increased and intensified,” rendering the property “totally unfit for cultivation or any other profitable use.” *Id.* The plaintiffs alleged a taking based on construction of the dike, *id.* at 128-29, and the Court held that more precise findings would be necessary to decide the claim. *Id.* at 129-32. It thus remanded for more particular findings on “what would have occurred if the dike had not been constructed.” *Id.* at 132. For present purposes, what matters is that the Court envisioned a causal comparison between the effects of the dike and the preexisting levee system—*not* a but-for world in which the levee system was nonexistent.

Next, the Government cites *Sanguinetti v. United States*, 264 U.S. 146 (1924), MSJ at 29, but that case is immaterial to this issue. The plaintiff complained about the construction of a canal. 264 U.S. at 146-47. The plaintiff's lands were overflowed after the canal was built, but the Court noted that "[t]he land would have been flooded if the canal had not been constructed." *Id.* at 147. "Prior to the construction of the canal the land had been subject to the same periodical overflow." *Id.* at 149. *Sanguinetti* illustrates the need for a but-for comparison, but it has nothing to do with the baseline for such a comparison because it did not involve any prior flood-control actions. Thus, it is immaterial to the validity of the *Hardwicke* rule. See *Arkansas Game*, 568 U.S. at 34-35 (warning against overreading the *Sanguinetti* opinion).

In short, the Supreme Court decisions cited by the Government are all consistent with the *Hardwicke* rule that, except when a risk-increasing action is contemplated at the time of the action alleged to be a taking, prior risk-decreasing actions should be factored into the causation baseline. In most cases, the challenged government action must be compared to a but-for world immediately preceding that action—which avoids the outrageous implications of the Government's rule.

The Government's citations to various lower-court authorities do not alter this conclusion. The Government cites *Arkansas Game II*, MSJ at 27, where the Federal Circuit dealt with causation in the context of a case about deviations in dam operations from 1993-2000. 736 F.3d at 1372 n.2. The parties had compared the flooding during the deviations to the flooding experienced under the 1953 Water Control Manual. *Id.* In dictum, the panel suggested that "the proper comparison" would have been to "the flooding that occurred prior to the construction of Clearwater Dam." *Id.* But it recognized that the 1953 Water Control Manual "largely mimicked pre-dam water flows," *id.*, and as a result, the baseline "appears to have had no effect on the outcome of this case." *Id.* In short, neither the parties nor the panel had any reason to consider the *Hardwicke* rule.

Finally, the Government relies on *Accardi v. United States*, 599 F.2d 423 (Ct. Cl. 1979), MSJ at 28, but that per curiam dismissal does not overrule or even address the *Hardwicke* rule. *Accardi* involved an alleged taking based on downstream flooding caused by discharges from a dam that was never intended to provide flood control protection:

[T]he Trinity River division was designed to store and provide water for use in irrigation, the generation of hydroelectric power, and the preservation and propagation of fish and wildlife. Flood control protection was not one of the stated purposes of the division, and it is not, and has not been operated as, a flood control project.

Id. at 425. Yet when the government discharged floodwaters from the dam in sufficient quantities to flood downstream properties, a property owner sued and claimed he had relied on a supposed government policy of maintaining a low release rate. *Id.* at 428. The trial judge was unimpressed. Alluding to the plaintiff's (alleged) belief that the dam would protect his land from flooding—despite two flooding events following its construction—the trial judge was unsparing: “That view was a plainly erroneous one.” *Id.* at 427.

In assessing causation, the court compared the flooding experienced against the flooding that would have occurred had the dam never been built and found that the dam had decreased the flooding that otherwise would have occurred. *Id.* at 429-30. “Indeed, it is fair to find from this record that the flooding which actually occurred in consequence of that storm was far less than would have been the case had the Trinity River division never been built. In these circumstances, there has been no taking of plaintiffs’ property.” *Id.* at 430. Of greatest importance to this case, however, the court rejected the plaintiff’s claim that he justifiably relied on a government policy of maintaining a low release rate for two reasons. First, the court found “there are grave difficulties with plaintiffs’ factual position.” *Id.* Second, the court ruled that the claim was “plainly contrary to the rationale of *Sponenbarger* and repeated decisions in this court.” *Id.*

The judgment in *Accardi* was perfectly sound for the first reason provided by the court. Given that the dam had never been intended to provide flood control, had not provided protection from flooding on two prior occasions, and had not been operated in such a way as to justify reliance on a supposed policy of maintaining a low release rate, there was no factual basis to apply the *Hardwicke* rule. In the words of *Hardwicke*, *Accardi* was a case in which “[t]here was no time when plaintiffs or their predecessors in title could have reasonably supposed” that they would be protected from floodwaters by the dam. *Hardwicke*, 467 F.2d at 491. Thus, the causation baseline correctly compared the flooding that occurred to a but-for world before the dam was constructed. In that sense, *Accardi* is perfectly compatible with *Hardwicke*.

It does not follow, however, that the same analysis would be appropriate on different facts. As explained above, the proposition that justifiable reliance on preexisting risk-reducing efforts can reset the causation baseline had been recognized by *Hardwicke* seven years before *Accardi*, and it has been reaffirmed since by *St. Bernard Parish*. Moreover, a member of this Court recently applied that rule, holding that when the government takes steps that “increased flooding to a degree that would not have been contemplated” at the time of its risk-reducing efforts, the but-for analysis should not consider those risk-reducing activities. *Ideker Farms*, 142 Fed. Cl. at 232.

In short, close inspection of the but-for causation analysis in these cases reinforces what the Supreme Court has said about takings-by-flooding cases: “[M]ost takings claims turn on situation-specific factual inquiries.” *Arkansas Game*, 568 U.S. at 32. Under *St. Bernard Parish*, *Hardwicke*, and *Ideker Farms*, the crucial question is whether—when viewed from the perspective of a reasonable property owner—“the risk-increasing action [here, the Government’s decision to inundate the downstream properties] was ‘contemplated’ at the time of the risk-reducing action [here, construction of the Reservoirs].” *St. Bernard Parish*, 887 F.3d at 1367 n.14.

2. Plaintiffs had no reason to anticipate the induced surcharges and the inundation of downstream properties.

This case falls squarely within the *Hardwicke* rule. There is overwhelming evidence that the downstream property owners “could have reasonably supposed” that their land “could benefit” from the Reservoirs “yet be free of the disadvantages” of induced surcharges that would flood the downstream properties. *Hardwicke*, 467 F.2d at 491. Consider the following facts:

- The Corps maintained a longstanding policy that “[t]he dams are operated strictly to prevent downstream flooding; therefore, the gates remain shut even if pool levels increase and flood upstream properties.” A181.
- Over six decades, the Corps repeatedly modified its discharge rates to prevent the flooding of downstream properties. A222, A25-26, A3002, A2714, A2674, A2681, A3117.
- In 2016, the Corps publicly advised Houstonians that “[w]e will not open the dam to a point where it will cause flooding downstream.” A3331-32.
- None of the test property owners knew of any prior flooding of their properties at the time of purchase. A493-527.
- None of the test property owners knew that the Government might deliberately release water from the Reservoirs in sufficient quantities to flood their properties. A3333-56.
- Even sophisticated participants in the West Houston real estate market did not know the Government might inundate downstream properties; market participants relied on the Reservoirs and expected them to protect downstream properties. A3357-58.

Based on this evidence, property owners could have reasonably supposed that they would benefit from the protection of the Reservoirs yet be free of an intentional decision by the Corps to open the floodgates and inundate downstream properties. At the very least, this evidence presents a genuine factual dispute regarding whether the downstream property owners are entitled to invoke the *Hardwicke* causation test.

The Government devotes only one paragraph to the *Hardwicke* analysis, *see* MSJ at 33-34, and its only factual assertions are that some form of induced surcharges had been authorized since the 1962 Reservoir Regulation Manual and the current induced surcharge regulation was set forth in the 2012 Water Control Manual. *Id.* But the critical question is not whether induced discharges were legally authorized—it is whether they were reasonably contemplated by the property owners. *See Hardwicke*, 467 F.2d at 491; *St. Bernard Parish*, 887 F.3d at 1367 n.14. The mere fact that provisions for induced surcharges appeared in a manual is not sufficient to conclusively disprove that fact—especially in light of this record and the admissions of the Government’s own witnesses:

- None of the test property owners or professionals in the West Houston real estate market had ever heard of the induced surcharge regulation. A3333-56.
- Richard Long, a public liaison officer for the Corps who has given many public presentations regarding the Reservoirs, A3401, admitted that he never told the public about induced surcharges or explained what an induced surcharge is. A3402. Nor did he warn the public that releases from the Reservoirs might flood downstream properties. A3403-04.
- Robert Thomas, the Corps’ corporate representative, could not recall making any public presentations about the risk of induced surcharges, and he is not aware of anyone else doing so. A3366-69.
- Colonel Zetterstrom, the senior officer in charge of the Reservoirs, never spoke to the public about the potential for induced surcharges and he does not know of anyone under his command who did so. A3408. Nor did he ever have any discussion with anyone at the Harris County Flood Control District regarding induced surcharges. A3408.
- Jeff Lindner and Steve Fitzgerald, representatives of the Harris County Flood Control District who would presumably be better-informed than members of the general public, did not know about induced surcharges. A3616-19, A3621, A3623.

There is no evidence in this record that the Corps ever publicly disclosed Section 7-05(b). Instead, the Corps repeatedly and publicly pledged to operate the Reservoirs in a manner to prevent downstream flooding—even at the cost of flooding upstream properties. *See* pp. 3-5, *supra*.

Given this evidence, there is at least a genuine issue of material fact regarding whether the property owners “could have reasonably supposed” that the downstream properties “could benefit” from the Reservoirs “yet be free of the disadvantages” of government-initiated induced surcharges that would flood those properties. *Hardwicke*, 467 F.2d at 491. Therefore, the *Hardwicke* test for but-for causation is applicable here. *See, e.g., Ideker Farms*, 142 Fed. Cl. at 232. Under that test, the Government’s evidence of but-for causation is legally immaterial. *See* MSJ at 30-33.

The Government cannot avoid this conclusion by arguing that its risk-reducing actions during Tropical Storm Harvey (*i.e.*, closing the gates before the storm) preclude but-for causation. MSJ at 32-33. That argument is simply another way of stating the Government’s causation theory that the but-for analysis should not include the existence and normal operation of the Reservoirs, and it fails for the same reason. The risk-reducing act of closing the gates before the storm is part of the causation baseline because, as noted above, the later risk-increasing act of opening the gates to cause downstream flooding could not have been reasonably contemplated. *See* pp. 45-46, *supra*. Downstream property owners had been assured repeatedly that the gates would not be opened to cause downstream flooding. *Id.* Therefore, the Government’s own assurances to the public dictate that the causation baseline should be a “gates closed” scenario.

3. Deliberate releases of water require comparison against a but-for world in which the floodgates remained closed.

There is a second—and even simpler—reason the but-for causation analysis in this case should focus solely on the induced surcharges: this case involves a “deliberate release of waters.” The Government itself has conceded that *St. Bernard Parish* is different from a situation in which the Government conducts a “deliberate release of waters” as part of “authorized operations.” Principal Br. for the United States in Nos. 16-2301, 16-2373, *St. Bernard Parish v. United States*, 2016 WL 7321489, at *3, 36. This is such a case—and in such cases, causation is self-evident.

The whole point of the but-for causation analysis in *St. Bernard Parish* and similar cases is to distinguish torts from takings, respecting “the traditional trespass-versus-takings distinction.” *Cedar Point*, 141 S. Ct at 2079. This entire body of law deals with the line-drawing problem of distinguishing government actions that cause accidental, unintended flooding (which are torts) from government actions in which the invasion of private property through flooding is properly viewed as an inherent feature of the government project (which are takings). *See, e.g., Sanguinetti*, 264 U.S. at 149-50; *Ridge Line*, 346 F.3d at 1355-57.

For example, in *St. Bernard Parish*, the Federal Circuit cited cases where courts undertook a causation analysis to determine whether the construction of a particular flood control project had the net effect of “taking” property from a property owner. This analysis applied to a dike (*Archer*), a canal (*Sanguinetti*), a levee (*Danforth*), a dam (*Accardi*), a floodway (*Sponenbarger*), and a system of channels and levees (*St. Bernard Parish*). *See St. Bernard Parish*, 887 F.3d at 1362-64. When a property owner alleges that the existence of a structure caused the flooding of property, courts must consider “whether the whole of the government action caused the plaintiff’s injury.” *Id.* at 1364. In other words, courts must consider not only the particular structure being challenged, but also other flood-control structures, to determine the net effect on flooding. But there is no need for such a line-drawing inquiry when the government deliberately floods private property.

When the government deliberately inundates private property, causation is self-evident. The comparative analysis of *St. Bernard Parish* and similar cases is inapplicable to such a case. Here, Plaintiffs do not challenge the construction of the Reservoirs (which occurred decades ago); they challenge only the Government’s decision to open the floodgates and deliberately inundate downstream properties. As such, the only causation inquiry is whether the downstream properties would have flooded “if the government had not acted” by opening the gates. *Id.* at 1362.

B. Under the correct legal standard, Plaintiffs have offered conclusive evidence regarding causation while the Government has offered no evidence.

If the but-for causation test requires a comparison between the flooding that occurred and the flooding that would have occurred if the gates had remained closed, there is no question that Plaintiffs are entitled to summary judgment. There is no genuine issue of material fact that if the gates had stayed closed, Plaintiffs would have experienced less or no flooding.

The experts on both sides of this litigation have compared what happened during Harvey to what would have happened if the floodgates had remained closed. Their conclusions are similar: If the gates had remained closed, several test property owners would not have flooded at all and the rest would have flooded less. *Compare* A1330 with A1741; A1843-45; A1801; A1819-26.

Unable to deny this evidence, the Government points to expert testimony that leaving the floodgates closed would have caused greater flooding *upstream*. MSJ at 35. That may be true, but it does not undercut the causation analysis for the *downstream* plaintiffs.

The Government also argues that if the gates had not been closed at the beginning of Tropical Storm Harvey, the flooding of downstream properties would have been even worse. *Id.* But the Government did close the gates and it was not forced to open them to avoid a greater risk. *See* p. 7, *supra* and p. 64, *infra*. Thus, its deliberate decision to open the gates caused the flooding. The Government's hypothetical simply recycles its erroneous but-for causation framework.

Finally, the Government falls back on its legal principle that causation must consider what “would have occurred if the Corps had never built Addicks and Barker Dams.” MSJ at 35. Again, this argument is legally incorrect based on the *Hardwicke* rule and a proper understanding of the challenged government action. Under the proper legal standard, only Plaintiffs have offered any relevant proof regarding causation. Accordingly, there is no genuine issue of material fact that the Government caused the flooding damages to the downstream property owners.

III. The Government’s Relative Benefits Defense Is Premature and Unsupported.

Next, the Government’s motion advances the theory of relative benefits, MSJ at 36-48, which is a “federal offset rule.” *Hendler v. United States*, 175 F.3d 1374, 1382 (Fed. Cir. 1999); *id.* at 1383 (“setoff rule “); *id.* (“rule of setoff”). At bottom, the Government contends that it has dispensed so many positives to the property owners in the past as to give it the categorical right to flood them out of their homes whenever it wishes to do so in the future. According to this theory, although thousands of homeowners in West Houston thought that their homes were their castles, their homes are actually just a vast federal moat.

The Government’s vision of the relative benefits defense is both limitless and meritless. Its current formulation of the argument reduces to the proposition that, if a flood-control project is successful in controlling floods, it will generate so many benefits over time that the Government will be free to alter the operation of the project at any time and flood private property without any recourse for the property owners. That theory proves too much. When the case came up last time on dispositive motions, the Government did not say a word about this theory, and for good reason: the record has not been developed sufficiently to decide this issue. By any name, this setoff theory requires individualized proof for each “particular property.” *City of Van Buren v. United States*, 697 F.2d 1058, 1062 (Fed. Cir. 1983). Thus far, “the government has not identified special benefits of this nature, instead relying . . . on a listing of the public benefits that flow from nearly all flood control projects.” *Id.* “As a matter of law,” however, “such a recitation [is] insufficient[.]” *Id.*

If the existing record were sufficient to assert a relative benefits theory, this Court would have heard about it last time in the Government’s multi-ground motion for summary judgment. Nothing has changed. The Government might be able to offer particularized proof during a trial—when the test property owners will have a chance to respond—but this record does **not** prove that the benefits conferred on each “particular property” outrun the damages for that specific tract.

A. The relative benefits doctrine is a setoff defense that the government must prove and is premature at this stage.

The concept of relative benefits had deep legal roots by the end of the nineteenth century, and American courts have always understood it to be a setoff theory. *See, e.g., Baumann v. Ross*, 167 U.S. 548, 583 (1897) (noting that in most states, “special benefits are allowed to be set off”); 2 Philip Nichols, *Eminent Domain* (2d ed. 1917) (entitling chapter XVI “The Set-off of Benefits”). Most states had grappled with this idea by 1900, and the concept spread into federal law *See id.*

The relative benefits doctrine in federal takings cases embodies the common-law concept. *See Hendler*, 175 F.3d at 1380 (“federal law permits offsetting the value of the part taken by any special benefits conferred”). Setoff is an affirmative defense to be alleged and proven by the party invoking it. *See Wright & Miller*, 5 Fed. Prac. & Proc. Civ. § 1271 & n.52 (4th ed.) (citing cases). The Government alleged this defense affirmatively, Dkt. 62 at 23, so it has the burden of proof.

Courts often compare the benefits and detriments of government action in economic terms. *See Hendler*, 175 F.3d at 1381 (benefit valued at \$195,000 outweighed plaintiffs’ valuation of damages of \$185,000); *see also Alford v. United States*, 961 F.3d 1380, 1385 n.2 (Fed. Cir. 2020) (comparing benefit and detriment in monetary terms). But this summary judgment record does *not* contain any economic quantification of the alleged benefits to the test properties.

When the downstream cases were remanded from the Federal Circuit, the Government urged this Court to allow a new round of summary judgment motions because the Federal Circuit had not reached “many of the legal issues” from the previous round of summary judgment briefing. Dkt. 36 at 7, No. 17-1235L, *Milton v. United States*. Plaintiffs argued that the case should proceed to trial so a complete record could be developed. *Id.* at 10. Instead, the Court agreed to entertain another round of summary judgment motions on the legal issues that had been addressed in the previous summary judgment briefing. *See* Dkt. 40 at 17, No. 17-1235L, *Milton v. United States*.

But the relative benefits issue was not raised by the previous summary judgment motions. *See* Dkt. 175, 183, 184-1, 190, 194. Indeed, it appeared to the Plaintiffs that the Government had abandoned the defense. Dkt. 190 at 16 n.16. The Government argued that it had not abandoned the defense but had simply chosen to concentrate on other issues like causation. Dkt. 194 at 19. The Government declared that “[i]f the Court denies the United States’ cross-motion for summary judgment, the United States will present evidence on the significant benefits of the Project *at trial*.” Dkt. 194 at 24 (emphasis added). Unsurprisingly, the Federal Circuit did not say anything about relative benefits in its list of issues to be considered on remand. *Milton*, 36 F.4th at 1163.

Yet the Government has changed positions—probably because it recognizes the difficulties of its causation arguments—and now contends that the existing evidentiary record establishes the relative benefits defense conclusively. *See* MSJ at 8 n.1 (noting that the Government’s new MSJ “relies on many of the same documents” attached to the 2019 summary judgment papers).

But this defense is fact-intensive and it cannot be determined on an evidentiary record that contains such little evidence of economic benefits or detriments. In *Alford*, this Court decided the relative benefits issue after trial. *See Alford*, 961 F.3d at 1383. Likewise, in the upstream cases, Judge Lettow did not address the relative benefits issue in the liability order. *See In re Upstream Addicks and Barker (Texas) Flood-Control Reservoirs*, 146 Fed. Cl. 219 (2019). He addressed the issue of relative benefits and any necessary offsets in the damages phase of the trial. *See In re Upstream Addicks and Barker (Texas) Flood-Control Reservoirs*, 162 Fed. Cl. 495, 532-33 (2022). Other courts dealing with takings-by-flooding cases follow a similar procedure and defer the issue to the second phase. *E.g., Ideker Farms, Inc. v. United States*, 146 Fed. Cl. 413, 414-15 (2020) (Phase II dealt with remaining liability issues, including relative benefits, and just compensation). Thus, deciding the relative benefits issue on this record would be premature and inappropriate.

B. Evidence of general benefits is insufficient to establish a relative benefits defense.

Because it lacks a record focused on the economic benefits and burdens of its actions for the test properties, the Government's motion focuses on total "benefits" to the community at large. But well-settled precedent parses benefits into (a) special and (b) general. Only special benefits will support this setoff defense. Under *City of Van Buren* and its progeny, "only benefits inuring specifically to the condemnee, rather than to the community at large, are relevant to an analysis of the government's liability under the Fifth Amendment." 697 F.2d at 1062.

Special benefits are limited to those that "arise directly and proximately to the remaining land as a result of the public work on the part taken, due to the peculiar relation of the land in question to the public work." *Hendler*, 175 F.3d at 1380. Conversely, benefits that "are more or less common to all lands in the vicinity of the land taken are general." *Id.*; see *City of Van Buren*, 697 F.2d at 1062 ("inuring specifically to the condemnee").

As the Federal Circuit recently noted, "[t]he cases discussing the relative benefits doctrine examine the overall benefits of the government action with respect to the particular property as compared to the detriment that was suffered." *Alford*, 961 F.3d at 1384. The doctrine "does not compare the benefits conferred on the community at large to the damage suffered by the plaintiffs." *Id.* at 1385. Thus, "benefit to the community at large has nothing to do with" the rule. *Id.* at 1386.

This rule makes sense because the setoff doctrine exists to assure that a property owner is "put in as good a position pecuniarily as if his property had not been taken. He must be made whole but is not entitled to more." *Olson v. United States*, 292 U.S. 246, 255 (1934). In this case, the Government has not shown that the test property owners are "in as good a position pecuniarily" as if their property had not been taken. *Id.* It has simply shown general benefits to the community, which is the sort of evidence that *City of Van Buren* rejected as a "listing of the public benefits that flow from nearly all flood control projects." 697 F.2d at 1062.

The Government's motion cites evidence about the aggregate benefits to the community before and after Tropical Storm Harvey. *See* MSJ at 39, 45 (\$16.5 billion before Harvey); *id.* at 46 (\$24.9 billion after Harvey). And it cites evidence about the aggregate benefits to the community during certain rain events. *Id.* at 43 (October 24-25, 2015); *id.* at 45 (April 17-19, 2016); *id.* at 46 (August 8, 2017); *id.* at 46 (2017 in general). None of this generalized evidence is legally relevant. *See Alford*, 961 F.3d at 1384-86. Because it relates to "the community at large," *City of Van Buren*, 697 F.2d at 1062, this evidence cannot support a summary judgment. Rather than establishing a relative benefits defense, this evidence proves that downstream property owners had no reason to contemplate that the Government would ever inundate their properties. *See* pp. 3-6, *supra*.

Moreover, the Government's aggregate evidence is based on several reports by the Corps. MSJ at 39, 43, 45-46. But these reports do not specify whether they were written by experts with the necessary qualifications, and certainly do nothing to explain the methodology for computing the aggregate figures or the reliability of the conclusions. They simply declare naked conclusions. These aggregate numbers are unreliable and they should be excluded. *See* Fed. R. Evid. 702; *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 592-93 (1993); *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 147-49 (1999). Indeed, they are so conclusory that they do not even raise a triable issue of fact. *See Streck, Inc. v. Rsch. & Diagnostic Sys., Inc.*, 665 F.3d 1269, 1290 (Fed. Cir. 2012); *Sitrick v. Dreamworks, LLC*, 516 F.3d 993, 1001 (Fed. Cir. 2008).

In short, because the Government did not develop the summary judgment record with an eye to the relative benefits defense, it does not have the sort of reliable and particularized evidence necessary to prove that defense—especially not as a matter of law at the summary judgment stage. The aggregate evidence the Government seeks to use as a substitute is irrelevant and unreliable, so summary judgment cannot be granted on this basis.

C. Under the *Hardwicke* analysis, the Government cannot prove relative benefits.

In an attempt to extract some particularized evidence from a record that was not developed for that purpose, the Government points to supposed benefits to the test properties during Harvey, MSJ at 39-41, and benefits during prior rain events. MSJ at 42-46. Because it lacks any evidence of economic benefits and burdens to the test properties, the Government relies on flow maps—asking the Court to (a) accept those maps as conclusive proof of flooding that would have occurred in the absence of the Reservoirs, and (b) infer from that supposedly conclusively evidence that the test property owners benefited more than they were burdened when the Government flooded them. As we shall explain momentarily, neither step in the Government’s chain of logic is conclusive, so summary judgment is inappropriate. But the argument fails for a threshold reason: in this case, the relative benefits inquiry must be conducted solely with reference to the induced surcharges.

As the Government acknowledges, the relative benefits inquiry “requires consideration of ‘what would have occurred absent government action.’” MSJ at 38 (citation omitted). Therefore, the critical question is what “government action” is alleged to be a taking. When a case involves the construction or operation of an entire flood-control project, the relative benefits inquiry must account for “‘the whole’” or the “‘entirety’” of that project. *Id.* at 37-38 (quoting *Sponenbarger*, 308 U.S. at 266-67). But that is not the case here. This case involves a single government action: the decision to order induced surcharges. The relative benefits analysis should be tailored to assess the benefits and burdens of that decision for the downstream test property owners. “There is no suggestion that all government benefits must be considered under the relative benefits doctrine. The relative benefits doctrine considers only government actions directed to the particular property at issue and considers only government activities directed to mitigating the type of problem that caused the damage.” *Alford*, 961 F.3d at 1386. Here, the sole focus of the relative benefits inquiry should be the induced surcharges—which provided no “benefits” to the test property owners.

That conclusion is especially true in this case because the Government’s supposed evidence of benefits to the test properties is the same as its evidence of causation; it is trying to repackage its causation case as a relative benefits defense. For example, in assessing benefits during Harvey, the Corps contends that its operation of the Reservoirs reduced the flow rates and peak elevations at points downstream along Buffalo Bayou. MSJ at 39-41. Once again, this evidence relates to “the community at large,” *City of Van Buren*, 697 F.2d at 1062, and proves only a general benefit. But the Government tries to connect this aggregate data to particular properties by reasoning that, “without the Project, Plaintiffs’ properties would have experienced flooding during Harvey at higher depths than they did with the Project.” MSJ at 41; *see also id.* at 41 n.22 (citing expert evidence that compares the depth and duration of inundation at each test property with and without the Reservoirs during Tropical Storm Harvey). This argument is nothing more than a repackaging of the Government’s causation theory.

For this reason, the relative benefits analysis in this case must be measured against the same baseline as the causation analysis. For cases that fall under the *Hardwicke* rule, like this one, the assessment of benefits cannot be based on prior risk-reducing activities that property owners had no reason to contemplate the government would withdraw. Otherwise, the *Hardwicke* rule would have no meaning and the government would have the right to accrue credits for generations, then withdraw its risk-reducing measures and flood private properties without any risk of liability. In cases subject to the *Hardwicke* rule, the relative benefits defense would virtually always apply; the government could simply concede causation but advance its same factual arguments under the relative benefits doctrine and prevail. Thus, in a case that is governed by the *Hardwicke* rule—especially one in which the same evidence is used to prove both a lack of causation and benefits—the baseline of the relative benefits inquiry must be the same as the causation inquiry.

In this case, as explained above, that proposition means the sole focus of the analysis is the decision to order induced surcharges. The Court must weigh the benefits of opening the floodgates (none) against the detriments of doing so. The Government cannot claim credit for the “benefits” of nearly 60 years of flood protection. This narrow focus is consistent not only with *Hardwicke*, but also with precedent from the Supreme Court and this Court.

In *Sponenbarger*, for example, when conducting the relative benefits analysis, the Court focused on the benefits conferred on the property by the government’s efforts under the 1928 Act as opposed to the detriments under that same Act:

The far reaching benefits which respondent’s land enjoys from the Government’s entire program precludes a holding that her property has been taken because of the bare possibility that some future major flood might cause more water to run over her land at a greater velocity than the 1927 flood which submerged it to a depth of fifteen or twenty feet and swept it clear of buildings. Enforcement of a broad flood control program does not involve a taking merely because it will result in an increase in the volume or velocity of otherwise inevitably destructive floods, where the program measured in its entirety greatly reduces the general flood hazards, and actually is highly beneficial to a particular tract of land.

308 U.S. at 266. Importantly, when the Court referred to “the Government’s entire program” and stated that benefits should be “measured in the whole” based on the program “in its entirety,” *id.*, it was *not* referring to the entire history of flood control (as the Government’s motion implies). See MSJ at 37-39. Rather, the Court was referring to the full scope of *contemporaneous efforts* by the government to control flooding. See p. 39, *supra*. Its holding on the relative benefits issue focused on “the program of the 1928 Act,” *Sponenbarger*, 308 U.S. at 267, and nothing more.

In *Ideker Farms*, another member of this Court recognized that relative benefits analysis does not give the government credit for the “existing baseline of protection,” but considers whether “flooding caused by the [challenged action] was outweighed by the benefits conferred on plaintiff by that same [action]”:

Thus, *Sponenbarger* does not mandate that this court look to every flood control benefit the government has conferred on a plaintiff in deciding whether there has been a taking. The Supreme Court acknowledged that there was an existing baseline of protection and looked only at whether the flooding caused by the 1928 Act was outweighed by the benefits conferred on plaintiff by that same Act. Here, by analogy, the court's inquiry was properly focused on whether the flooding caused by the MRRP is outweighed by any flood protection benefits conferred on plaintiffs by the MRRP only.

146 Fed. Cl. at 420-21. The same analysis is applicable to this case.

Accordingly, the Government's calculation of benefits that accrued over several decades is insufficient to prove a relative benefits defense with respect to this particular government action. *See* MSJ at 42-48. If the rule were otherwise, the bare fact that a flood-control project is successful in accomplishing its intended purpose would automatically accrue benefits that would eliminate any hope of compensation in the event of future flooding. That theory proves too much.

The Government's contrary position would have grave implications for many Americans. Much of modern America has been reclaimed from swamps or the sea—such as New Orleans, Back Bay in Massachusetts, the San Francisco waterfront, Chicago's Lake Michigan shoreline, and Battery Park in Manhattan. *See* A3472-574. May the Government freely re-flood those cities? May it freely remove the Chickamauga Dam and flood the City of Chattanooga? *Id.* Surely not. Public works projects are often intended to stimulate private investment in the surrounding areas, but employing the relative benefits doctrine to defeat reasonable, investment-backed expectations would punish property owners in the short term and deter private investments in the long term.

Historically, the relative benefits doctrine tended to arise in cases involving a few farms. *Ideker Farms* is just the latest in this long line of cases. *E.g.*, *Big Oak Farms, Inc. v. United States*, 131 Fed. Cl. 45 (2017); *Laughlin v. United States*, 22 Cl. Ct. 85, 112 (1990), *aff'd*, 975 F.2d 869 (Fed. Cir. 1992); *Bartz v. United States*, 633 F.2d 571 (Ct. Cl. 1980); *Ark-Mo Farms, Inc. v. United States*, 530 F.2d 1384 (Ct. Cl. 1976). In that context, the reliance problem may be less apparent.

But the Government’s rationale goes far beyond farm cases. It would let the Government freely park floodwaters in hundreds of kitchens and thousands of bedrooms across West Houston. And as urban development continues in the Houston suburbs—furthering a trend that started before these projects and will continue into the future—the Government’s claim to a flooding chit will swell far beyond the \$25 billion range recited in the motion. *See* MSJ at 17 (“over \$16.5 billion”); *id.* at 39 (“over \$16.5 billion”); *id.* at 46 (“over \$24.9 billion”). The flaw in this conception of cognizable benefits does not come from the sociological distinction between urban and rural lands, but rather from the legal distinction between general and special benefits. When alleged benefits skyrocket into the billions of dollars, it is likely that the alleged benefits are general, not special: “The only safe general rule is that the fewer the parcels ‘benefited’ by the improvement, the more likely the benefit is deemed to be special and deductible.” 8A Sackman, Julius L., et al., Nichols on Eminent Domain § G16.04, LexisNexis (citing authorities).

Indeed, the Government’s notion of “special benefits” goes far beyond the traditional rule. At its core, relative benefits analysis considers “whether special benefits to retained land can offset the value of the part actually taken.” *Hendler*, 175 F.3d at 1379. For instance, if the Government condemns a portion of the land for a railroad tract, special benefits accruing to the rest of the land increase its value and must be offset against the value of the land actually taken.

But the record before the Court does not prove such increases in value. The Government wants credit for protecting the downstream properties from flooding during previous rain events, MSJ at 42-46, but those benefits were washed away when the Government opened the floodgates and flooded the downstream properties. In other words, any special benefits that were conferred on the properties in prior rainfall events were taken back by the Government. In such a scenario, the relative benefits analysis should not include credit for the prior risk-reducing actions.

The contrast between this case and *Alford* illustrates why the Government cannot claim credit for its risk-reducing activities—either before or during Tropical Storm Harvey. In *Alford*, “the benefits to the plaintiffs’ properties from the government’s 2011 decision to raise the water level of Eagle Lake” were held to exceed the burdens of that decision because, absent that decision, there was a 95% chance that a levee would have broken and the plaintiffs “would have suffered more serious damage than they actually did.” 961 F.3d at 1385 (cleaned up). *Alford* illustrates that it is correct to focus the analysis on the government action in question, and when doing so, courts must consider the benefits and burdens of that action by comparing what actually happened to what would have happened in the absence of the action. If properties will be “totally inundated” in the absence of the government action, *id.*, partially inundating them to avoid greater damage may establish the relative benefits defense. But that is *not* the case here.

Unlike in *Alford*, the Reservoirs were performing as intended and the dams were never in danger of failing. *See* p. 7, *supra* and p. 64, *infra*. They were never “overwhelmed.” MSJ at 39. Accordingly, unlike in *Alford*, the Government was *not* forced to choose between flood damage from induced surcharges and even greater flood damage from a failure of the Reservoirs. Instead, the Government ordered induced surcharges as a prophylactic measure to protect the Reservoirs. Opening the gates did not benefit the downstream properties, but only the upstream properties—which is immaterial because relative benefits focuses on “the overall benefits of the government action with respect to the particular property as compared to the detriment that was suffered.” *Alford*, 961 F.3d at 1384. This scenario is a classic case of “‘forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole.’” *Arkansas Game*, 568 U.S. at 31 (quoting *Armstrong v. United States*, 364 U.S. 40, 49 (1960)). Thus, the Government cannot prove a relative benefits defense in this case.

D. In any event, the Government cannot conclusively prove that the benefits outweighed the detriments as to the test properties.

In any event, the Government's proof as to relative benefits does not conclusively establish the defense at this stage. At most, this fact-bound issue should be decided at trial.

Take, for example, benefits during Harvey. The Government's evidence allegedly shows that the test properties would have flooded to a higher depth and duration without the Reservoirs. Dkt. 259 at US_SJ_3608. But the Government has made no effort to convert that difference to economic value—much less to calculate an offset against the test property owners' actual losses. There is proof that the test property plaintiffs suffered serious out-of-pocket losses, *see* A3333-56, and broadly speaking, the downstream properties lost 20% or more of their market value. A3358. The Government has offered no controverting economic evidence. The evidence the Government cites might provide the foundation for a proper relative benefits analysis by an economic expert. But the Government has not yet conducted such analysis, so Plaintiffs' proof stands un rebutted.

Next, consider benefits during prior rain events. The Government's proof again fails to carry its summary judgment burden. The Government points to inundation maps to argue that the properties would have flooded without the Reservoirs. *Id.* at 43, 45. But the Government's attempt to connect these inundation maps to the test properties is inconclusive. The Government is forced to concede that the maps “‘indicate areas that may be inundated when the flow in Buffalo Bayou is known for the approximate area in question.’” *Id.* at 40 n.21 (Dkt. 259 at US_SJ_2473). It has simply mapped the test properties onto these inundation maps. *See* Dkt. 259 at US_SJ_3879-901. But there is no explanation regarding whether the properties would have definitely flooded during the prior rain events, and there is no explanation of how the test properties were placed onto the inundation maps—i.e., whether by an expert or an attorney. This proof may be probative at trial, but it does not conclusively establish the relative benefits defense.

The Government also cites its expert’s modeling of prior rain events and the extent to which Plaintiffs’ test properties would have flooded. MSJ at 44 n.26 (discussing 2016 Tax Day Storm). But the expert only says that certain properties would have flooded to a certain height and duration during these prior rain events. Dkt. 259 at US_SJ_3610. The Government does not reduce this purported avoidance of flooding to economic benefits—much less attempt to quantify the value of delaying a flooding loss for slightly more than one year—and also does not compare such benefits to the staggering economic detriments caused by opening the gates during Harvey.

Finally, the Government draws inferences in its own favor from its cross-examination of one of Plaintiffs’ experts and a few of the test property owners. MSJ at 46-47. Dr. Philip Bedient, one of Plaintiffs’ experts, agreed that without the Reservoirs, “damage during Hurricane Harvey to downstream properties would have been far more significant.” Dkt. 259 at US_SJ_3704. However, that is just the sort of aggregate testimony about benefits to the “community at large” that will not sustain the defense. *Alford*, 961 F.3d at 1385-86; *City of Van Buren*, 697 F.2d at 1062. Moreover, Dr. Bedient’s testimony regarding “damage” related to height and duration of flooding, and not the economic inquiry that is important for relative benefits. It may be probative evidence, but it is far from conclusive proof that any benefits associated with the Reservoirs exceeded the burdens inflicted on the downstream properties by the induced surcharges.

Curiously, the Government cites testimony from certain test property plaintiffs about the benefits they have derived from the Reservoirs. MSJ at 46-47. This testimony proves the reliance that downstream property owners have placed on the Corps not to flood downstream properties, which triggers the *Hardwicke* rule and requires a comparison of causation—and relative benefits—that examines only the consequences of the induced surcharges. Under that rule, the Government unquestionably cannot prevail on its relative benefits defense.

IV. The Government Cannot Meet the High Bar Required to Assert a Necessity Defense, and Its Police Powers Defense Is Nonexistent.

The Government argues that its decision to flood Plaintiffs’ properties cannot constitute a taking because of “the police powers doctrine” and “the related doctrine of necessity.” MSJ at 51; *see also id.* at 48-51. But the doctrine of necessity is a very narrow defense against takings claims, and the Government cannot carry the heavy burden required to prevail on this defense. Moreover, apart from the necessity defense, there is no “police powers” exception.

A. The doctrine of necessity is an extremely narrow defense against takings claims, applying only in cases of “imminent danger” and “actual emergency.”

The doctrine of necessity “absolve[es] the State of liability for the destruction of real and personal property, in cases of actual necessity, to prevent or forestall grave threats to the lives and property of others.” *TrinCo Inv. Co. v. United States*, 722 F.3d 1375, 1377 (Fed. Cir. 2013) (quoting *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1029 n.16 (1992)) (cleaned up). But here, the Government cannot establish the facts required to assert the defense.

“[T]here are certain prerequisites that must be met before the doctrine of necessity can be applied to absolve the Government of a duty to compensate a party for lost property.” *Id.* at 1378. Specifically, “the doctrine of necessity may be applied only when there is an *imminent danger* and an *actual emergency* giving rise to actual necessity.” *Id.* (emphasis added). As *TrinCo* put it, the Government must make a showing of “imperative necessity.” *Id.*

In *TrinCo*, the Government was unable to meet that burden. In that case, the United States Forest Service had “intentionally lit fires directly on and adjacent to TrinCo’s properties in order to reduce unburned timber which might fuel [an ongoing wildfire],” and the Government argued, in response to TrinCo’s takings claim, that “any act undertaken by the Government in connection with fighting a fire is covered by the necessity defense.” *Id.* at 1377, 1380. The Federal Circuit squarely rejected the idea that such prophylactic measures can establish the necessity defense:

[E]very taking by the Government in the name of fire control does not automatically qualify as a necessity sufficient to satisfy the requirements of the necessity defense. The necessity defense is just what it says it is: a defense. It has always required a showing of imminent danger. The use of the word “necessity” in the title is no accident. The defense requires both an actual emergency and an imminent danger met by a response that is actually necessary. Not every seizure of a private citizen’s property will qualify.

Id. at 1380. By the same reasoning, not every action taken by the Government to avoid flooding is protected by the necessity doctrine. The Government must compensate Plaintiffs for flooding their properties unless it proves an “actual emergency, imminent danger, and the actual necessity of the Government action.” *Id.* at 1379; *see also Orr v. United States*, 145 Fed. Cl. 140, 151-53 (2019) (applying this test to a flooding case). The Government cannot meet that high bar.

B. The Government cannot carry the heavy burden necessary to prevail on a necessity defense.

The induced surcharges were *not* emergency operations to avert an imminent dam failure. The Corps never invoked its emergency action plan. A1153, A448. The Corps’ own witnesses and documents prove the Reservoirs were never in danger of failing and their structural integrity was never at risk. A446-48, A3141, A3628-29, A1156, A3376-78, A3400, A3409-10. The Corps found the Reservoirs “perform[ed] as expected with no significant problems.” A1156, A446-47. Plaintiffs’ expert agrees: “[I]t was not necessary from a dam safety perspective to open the gates.” A1828. “[T]he maximum pool levels would not have changed significantly and there would have been no significant decrease in dam safety due to levee instability and/or seepage and piping.” *Id.*

Rather than being an emergency action, the record shows that the induced surcharges were “normal operations”—precautionary measures intended to maximize reservoir storage capacity and pre-emptively protect the integrity of the dams. A442-43, A1177, A1179, A3141, A3143. Importantly, induced surcharges are triggered well before the dams reach their full capacity. *Compare* A50 (induced surcharge triggers) *with* A177-78 (reservoir capacities).

Moreover, Tropical Storm Harvey was not an unforeseen weather event. As the Corps itself noted in a 2009 report, “Tropical Storm Allison (2001) as well as Hurricane[] Ike (2008), Hurricane Rita (2005), [and] Tropical Storm Arlene (1993) are strong evidence that disastrous rainfall events could occur anywhere in the Houston area.” A180. Judge Lettow correctly found in the upstream cases that, even though “Tropical Storm Harvey was a record-setting storm,” A3666, “the evidence markedly shows that pools of this size and the attendant flooding of private property were, at a minimum, objectively foreseeable. Thus, Harvey’s magnitude does not exculpate the government of liability for its actions.” *Id.*

The bottom line is that, during Tropical Storm Harvey, there was no “imminent danger” that made flooding downstream properties an “imperative necessity.” *TrinCo*, 722 F.3d at 1378. The Government simply decided to flood the downstream properties as a precautionary measure. Given that the prophylactic firefighting measures in *TrinCo* did not satisfy the necessity defense, these normal operations under the Water Code Manual certainly do not do so.

C. There is no “police powers” exception to the takings clause apart from the necessity defense.

Because the Government cannot prevail on its necessity defense, it purports to invoke the “police powers doctrine” as well as “the related doctrine of necessity.” MSJ at 51. But there is no “police powers doctrine” that exists separately from the necessity defense.

The Government tried this same “police powers” argument in the Federal Circuit appeal, but the court held that “[t]he Supreme Court has rejected the notion that private property is subject to ‘unbridled, uncompensated qualification under the police power.’” *Milton*, 36 F.4th at 1162 (quoting *Lucas*, 505 U.S. at 1014). Instead, the Court has recognized that the Government’s power to avoid liability for a taking on this rationale is confined to “‘cases of actual necessity.’” *Id.* (quoting *Lucas*, 505 U.S. at 1029 n.16).

Thus, the Federal Circuit made it clear that the Government can prevail on its police powers argument only by satisfying the requirements of the necessity defense—which, as explained above, it cannot do. There is no separate police powers defense to a takings claim.⁷

By contrast, the Government cites no legal authority for the proposition that there exists a “police powers doctrine” separate from the necessity defense. *TrinCo* is the only decision that the Government cites in support of the proposition that its act of flooding Plaintiffs’ property does not constitute a taking under the so-called “police powers doctrine.” *See* MSJ at 48-51. But the phrase “police power” does not appear a single time in *TrinCo*. *TrinCo* solely concerns the “principle . . . commonly referred to as the ‘doctrine of necessity’ or the ‘necessity defense.’” 722 F.3d at 1377. Thus, the Government has cited no authority for the idea that there is a “police powers doctrine” separate from the necessity defense.

In any event, even if this Court entertained the suggestion that a “police powers doctrine” might provide a defense to takings liability in some cases, that doctrine would not succeed here. By definition, it would not apply to the permanent taking claim, and the same considerations that would animate such an argument are already subsumed in the *Arkansas Game* analysis.

First, any suggestion that all property rights are subject to the government’s police power is immaterial insofar as this case involves a taking of a permanent, categorical flowage easement. When the Government takes a permanent, categorical easement, it must pay for it, “no matter how weighty the asserted ‘public interests’ involved.” *Lucas*, 505 U.S. at 1028; *see also Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 546 (2005).

⁷ The Federal Circuit instructed this Court to consider “whether the Government can invoke the necessity doctrine as a defense.” *Milton*, 36 F.4th at 1163. It did not list a police powers defense, confirming that there is no police powers defense that exists separately from the necessity defense.

Second, insofar as this is a temporary flooding case to be analyzed under *Arkansas Game*, any reliance on the “police powers doctrine” would be anachronistic. The nineteenth-century cases that once supported a “police powers” defense were simply “the Court’s early attempt to describe in theoretical terms why government may, consistent with the Takings Clause, affect property values by regulation without incurring an obligation to compensate.” *Lucas*, 505 U.S. at 1022–23. But the Court now evaluates exercises of the police power through its regulatory takings factors, not *per se* rules. *See Lingle*, 544 U.S. at 537–40. Not coincidentally, the regulatory takings factors overlap with the four factors outlined in *Arkansas Game* for claims involving temporary flooding. *Compare id. with Arkansas Game*, 568 U.S. at 38–39. Accordingly, arguments about the validity of the Government’s decision to flood Plaintiffs’ properties are not a basis for any freestanding “police powers” defense, but simply considerations to be weighed under *Arkansas Game*.

V. The Government’s Inaction Defense Mischaracterizes Plaintiffs’ Claim.

The Government ends its summary judgment motion by knocking down one last straw-man, arguing that a taking claim cannot be based on inaction. MSJ at 57–58. That rule is neither disputed nor relevant to this case. Plaintiffs do not fault the Government for inaction or a failure to protect them against flooding. Rather, as the Government recognizes, “Plaintiffs frame their liability arguments as based on the Corps’ affirmative act of opening the dam gates during Harvey.” *Id.* at 57.

This is not a case like *St. Bernard Parish*, where the plaintiffs complained about inaction. *St. Bernard Parish*, 887 F.3d at 1360–61. It is a case about an affirmative act by the Government: a deliberate decision to open the floodgates and inundate the downstream properties—when it was not necessary to do so to avoid any imminent risk to the integrity of the dams—in accordance with Section 7-05(b) of the Water Control Manual. That claim must be evaluated on its own merits; the Government cannot recast it in order to avoid its constitutional duty to pay just compensation for affirmative actions that took a flowage easement over Plaintiffs’ properties.

CONCLUSION

The Government's summary judgment motion should be denied, and the Court should enter a partial summary judgment for the Plaintiffs on the liability and causation elements of their claims.

All other issues, including damages, should be set for a prompt trial.

Respectfully submitted this 10th day of January, 2023.

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CERTIFICATE OF SERVICE

The undersigned attorney hereby certifies that a true and correct copy of the foregoing instrument was served on all counsel of record registered for electronic service via CM/ECF on January 10, 2023.

/s/ Rand P. Nolen
Rand P. Nolen